Lectures
ON
THE PRINCIPLES AND PRACTICE OF MEDICINE.

Delivered at University College Hospital,

BY WILLIAM JENNER, M.D., F.R.S.,

PHYSICIAN IN ORDINARY TO HER MAJESTY THE QUEEN AND TO H.R.H. THE PRINCE OF WALES; PROFESSOR OF MEDICINE IN UNIVERSITY COLLEGE, AND PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; LATE PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, ETC. ETC.

LECTURE II.

Anatomical characters of a kidney the seat of simple mechanical congestion.
Anatomical characters of a kidney the seat of congestion due to feeble action of the heart, state of blood, &c.
Anatomical characters of the kidneys in chronic Bright's disease. First form. Second form.

ON BRIGHT'S DISEASE.

WHEN the subject of extreme mechanical congestion, the kidney is increased in size: it may weigh as much as six or seven ounces. The capsule separates more easily, and the surface is moister, than in health. The surface also is darker, and its hue more purple, than is natural. Moreover, dark-purple spots, about half a line in diameter, are commonly scattered over the surface. The surface generally of a section is darker and moister than it should be. The Malpighian bodies are deep-red and large; fibrinous or blood casts of tubules can be expressed from the mammillæ. Little linear patches of extravasated blood mark the cut surface, and from it more fluid blood escapes than is natural. The cortical substance is thicker than in health.

The moistness of the superficial surface and the too easy separation of the capsule are due to serosity poured out from the vessels on or near the surface; the increased weight, to the excess of blood in the vessels, to the fibrin or blood in the tubules, and to the serosity which helps to give moisture to the whole organ. The dark colour of the Malpighian bodies and of the organ generally is due to the excess of blood in the vessels, and here and there to extravasated blood; the purple spots on the surface, to blood extravasated into the interior of a set of tubules; the little crimson or dark-purple lines on the cut surface, to extravasation of blood from the capillaries of the portal system; the thickness of the cortex, to the excess of blood and serosity, and to the presence of casts in the tubules. The cells contain a greater number of molecular protein granules than in health, and cells are not unfrequently found lying free—i. e., detached from the basement membrane and from each other, in the tubules.

The kidney, like other organs subjected to repeated attacks of mechanical congestion, ultimately becomes indurated and tough. Enlargement or thickening, induration, and toughness of tissues and organs, are the general results of repeated mechanical congestion.

When the seat of passive congestion from feeble action of the heart, position, state of blood, &c., the kidney is somewhat larger than in health. The cortex is not so thick as it is in the last-described form. The blood is less firmly packed into the tubules, and therefore the purple spots on the surface are less numerous and smaller than in direct passive mechanical congestion. If recovery occur before exudation has taken place, then the kidney returns to its natural state, at least no abnormity of urine or of the structure of the kidney can be detected. But if reaction occur, the case becomes one of a low form of inflammation of the kidney. If the patient should not die from the combined effects of the primary disease—e. g., typhoid fever, septicæmia, pyæmia, and of the secondary disease—i. e., the acute renal affection—then, if the exudation be small in quantity, and the loss of epithelium not excessive or repeated, the lymph may be absorbed and the epithelium reformed, and the kidney be restored to health as regards structure and function. In a large number of such cases, however, either from the quantity of the exudation or from the repeated loss of epithelium, and the reformative power being ultimately injured or lost, restoration of the organ to health does not take place, and chronic Bright's disease results—i. e., a chronic structural change of the kidney, which has as a direct consequence impairment of the excreting function of the kidney, and so leads to retention of the urinary elements in the blood. From what I have just said you will understand that the damage to the structure and function of the kidney from this disease may be so slight that we are unable to say positively that the organ is diseased; or it may be so great that death is the necessary and not far off consequence. There is no line of demarcation between the least possible and the greatest possible amount of lesion.

Chronic Bright's disease.—This leads me to a description of the kidney when the subject of chronic Bright's disease.

All the kidneys which I have removed from the bodies of those who have died while suffering from chronic Bright's disease may, I think, be referred to some modification of the following four primary pathological conditions:—

I.—Large kidney; smooth on the surface; yellowish, streaked or mottled or intermingled with more or less pink; opaque, with opaquer spots. Cortex greatly increased in breadth. Line of demarcation between the cortex and the pyramids imperfectly defined. The capsule is usually more or less adherent to the surface, and it is oftener thicker than natural.

Microscopic characters.—Granules of olein and protein in the cells, on the vessels of the Malpighian bodies, between the tubules, and, in fact, on and between every microscopic anatomical constituent of the organ. The Malpighian bodies usually appear large and pale.

The size depends on the quantity of granular lymph infiltrating the organ, and penetrating every part; the smoothness of the surface, on the uniform diffusion through the textures of the lymph; the thickness of the cortex, on that part being in health more vascular and looser in texture than the pyramidal. The colour depends on the relative proportion of the blood and granules of protein and olein; the more the granules, especially the olein, preponderate, the paler and the yellower. The opacity is due to the granular texture of the lymph; the spotted appearance, to the granular disintegration being more advanced at some places than at others. The size of the Malpighian bodies and their opacity, to the accumulation on the vascular coil of granules of the lymph. The absence of a well-defined line of demarcation between the cortex and pyramids, to the lymph penetrating in quantity some distance into the base of the pyramids, the texture there being less dense than it is further down.

The protein granules have their origin—

1st. In exudation.

2nd. In disintegration of pre-existing homogeneous protein substances which constitute parts of the normal kidney—e. g., that in the interior of the epithelial scales or cells of the kidney.

The olein granules have their origin almost, if not altogether, in degeneration—

1st. Of the lymph.

2nd. Of the protein structures of the organ, and especially of the contents of the damaged epithelium cells.

This large, smooth, uniform, pale, opaque kidney, the morbid appearances of which are due to the infiltration of all its textures with granular lymph, seems to undergo the following changes:—

1. The olein and protein granules accumulate at spots in the interior of the cells in quantity sufficient to give to the superficial and cut surfaces a granular appearance—i. e., a surface covered with opaque spots. The kidney looks granular, but is smooth to the touch.

2. The damaged broken-up epithelium and the granules within the tubules are washed away by the urine. This loss necessitates a proportionate shrinking of the kidney. The loss of substance is the greatest at those parts of the organ where the epithelium is the most damaged, and so the least firmly attached to the basement membrane; and also where the Malpighian vessels pour out fluid most abundantly. And as the local shrinking is in proportion to the local loss of substance, the shrinking or contraction will be unequal. From

this unequal shrinking result, not merely diminution in the bulk of the organ, but granulations perceptible to touch. Of course the organ thus rendered granular, although smaller than it once was, may still be larger than a healthy kidney. If, however, the enlargement be trifling, then the shrunken organ may be smaller than a healthy kidney.

Infiltration of the kidney with granular lymph may be the consequence of acute active congestion passing into inflammation, especially when secondary to general diseases of low type—e. g., typhoid fever, scarlet fever, diphtheria.

It occurs very commonly as a primary chronic disease in scrofulosis and tuberculosis, and also in those whose constitution has been damaged by unfavourable hygienic conditions.

This form of Bright's disease is very common; and that in all degrees—from the most trifling to the gravest; from that in which recovery is probable to that in which a fatal termination is inevitable.

When least affected, we may be doubtful from the naked-eye characters whether the organ is diseased or not, and it may be that the microscopic examination scarcely enables us to speak with certainty, so little is the deviation from health.

II.—Large, smooth, yellowish kidney; dots and lines of red often present on the cut surface; scarcely, if at all, opaque. The cortex is especially increased in breadth. The capsule is transparent, thin, and easily removed from the surface of the kidney.

Microscopic examination.—Great quantity of olein in the epithelial cells lining the basement membrane of the tubules. In the few cases of this form of Bright's disease that I have examined after death, the olein has formed globules of some size rather than granules. The Malpighian bodies are normal, or their vessels are fuller of blood than natural.

The large size of the organ and its colour are due to the olein in the cells. I told you that the capsule of the Malpighian body is not lined with cells; hence, as the olein is limited to the cells of the kidney, the Malpighian bodies are healthy in appearance, excepting that in some cases their vessels are over-distended with blood. The engorgement of the vessels constituting the Malpighian tuft is probably, as Dr. Johnson has supposed, the mechanical result of compression of the portal system of veins by the over-distended tubules, the enlargement of the tubules being due to the overfilling of the cells with olein. We have already seen how different is the state of the Malpighian bodies in kidneys infiltrated with granular lymph. The only varieties of this form of kidney that I have seen have been due to unequal accumulations of the olein. Thus I have several times observed a great accumulation of olein in the cells lining the tubules around the bases of the pyramids, giving a very peculiar appearance to the cut surface of the organ—viz., a yellowish-white band aroond the base of each pyramid. I have never seen the primarily fatty kidney granular to the touch. The kidney in which the olein is limited to the interior of the cells is the primarily fatty kidney, and was first described by Dr. George Johnson. It is, at least in its developed form, comparatively a rare disease. It is not, in any sense of the word, inflammatory in origin. It is found especially in the subjects of tuberculosis, and results from some chronic change in the nutrition of the organ. Those who believe that in health there is a trace of olein in the cells, would say there is hypertrophy or excessive formation of this olein.

Pathologically it is identical, I think, with a very common form of fatty liver. We say there is abnormal nutrition, but we only know the abnormity exists by its product.

THE SURGICAL SOCIETY OF PARIS AND THE LATE MR. GUTHRIE.—At the annual meeting of this Society, on the 11th inst., the Secretary, M. Legouest, read the panegyric of the late Mr. Guthrie. The orator followed our countryman on the fields of battle of Portugal and Spain, from 1807 to 1813, and at Waterloo; he gave a sketch of the private career of the great British surgeon, and depicted his success as professor, operator, and author. In one part of the discourse M. Legouest ventured upon a parallel between Larrey and Guthrie, which was very much applauded.

INCIDENT AT THE ACADEMY OF MEDICINE OF PARIS.—The fears expressed respecting the health of the President, M. Malgaigne (see last week's LANCET), were sadly realized on the 10th instant. Shortly after a discourse delivered by M. Ricord, it was perceived that M. Malgaigne was insensible. The worthy president was conveyed home, where he recovered consciousness, but much uneasiness is felt respecting his ultimate fate. The latest information states that the patient is likely to recover by rest and care.

Clinical Observations
ON THE
COURSE OF TYPHUS FEVER,
AND
ESPECIALLY ON THE PHENOMENA OF THE CRISIS.

Delivered in the Royal Infirmary of Glasgow, Dec. 15th, 1864.

BY WM. T. GAIRDNER, M.D. EDIN.,
PROFESSOR OF THE PRACTICE OF PHYSIC IN THE UNIVERSITY OF GLASGOW.

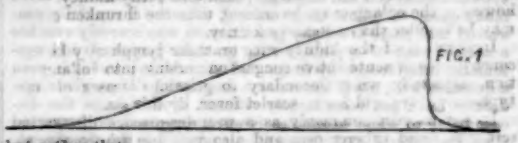
GENTLEMEN,—We are now in the midst of a very considerable epidemic of typhus fever, and under the impression that it might be useful to you, as well as a relief to the medical staff of the fever-house, I have been on duty in two fever wards since the 27th of September last, and have seen to an end considerably upwards of 100 cases, of some of which I gave you some account in a previous lecture. My winter engagements, however, oblige me to abandon fever duty at present, and we must consider the programme of clinical instruction in fever as cut short abruptly at this date. We have had, however, a very considerable field of experience, and as I distinctly intended from the first that these cases should be made subservient to your instruction, I am unwilling to depart from them now without some attempt to clear the way to principles which may possibly be of service in the future management of the epidemic. In the former lecture I gave you details, drawn from our experience at that time, illustrative of the symptoms and course of the fever we have had lately under treatment. It would have been useful to follow out this inquiry by a more careful analysis of the fever, so to speak, and a consideration of individual symptoms and complications; but this is precisely what I find we must give up attempting at present, and therefore I have determined to publish in the January number of the *Glasgow Medical Journal* an abstract of all our cases, that you may see for yourselves what sort of cases they were, and be able to refer to them as the basis of facts upon which this lecture, and another which will follow it, will be founded. You will find in the journal alluded to, the notes of 68 cases of febrile disease in the male ward, and 58 in the female ward, numbered *successively*, exactly as they were admitted. Of these 68 male cases we regarded 58 as genuine typhus, established as such within at least a few days after admission, and beyond all reasonable doubt; and of the 58 female cases we regarded 50 as genuine typhus, the remainder being cases one or two of which *may* have been typhus, but which, on the whole, we regarded as either doubtful, or decidedly *not* typhus fever. Every case noted as typhus was so noted on grounds which you may read in the abstract to which I have referred, and which, I trust, will bear the strictest investigation.*

Now this disease—typhus fever as witnessed by us—is one of which the following brief summary may be given. It is a disease very decidedly and strongly febrile, in which the pulse has rarely been less frequent than 100, often as frequent as 120, not seldom 130, or even 140 or more, in the minute; but in this last case usually, in the adult at least, indicative of grave danger. Moreover, typhus fever as we have seen it of late, is a disease almost always indicated by a peculiar rash (which has been so often described that I will not linger on the description now)—a rash appearing during the first week, and persisting during a large part of the second week, and then gradually dying away. Again, the typhus with which we have had to do has been marked by very decided, and not at all

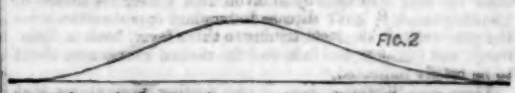
* One case which, on the whole, I should have preferred to place amongst the doubtful ones (Case 57, females), has by inadvertence been placed amongst the typhus cases, and was only detected after the returns were made up; but as the variation would be merely fractional, indeed hardly appreciable, and as I believe after all the case was one of typhus, I have not thought it necessary to alter the totals on this account.

equivocal, nervous symptoms of the kind called typhoid, of which the first and least characteristic was sleeplessness, extending over several nights; the next delirium, often with tremors and agitation, muttering, and more or less contracted pupils; the last and worst, coma, with subsultus tendinum, and failing of the vital powers, pulse, and animal heat, from which last and worst state few escaped with their lives; but happily coma was present only in a small minority of the cases. We have also had a considerable number of complications, of which I will only name the following at present:—Bronchitis, frequent and severe in the latter part of our two months' experience; diarrhœa, frequent, but not very severe; vomiting; epistaxis; menorrhagia; suppuration of the ears, with nervous symptoms apparently depending thereon; abortion; jaundice; laryngeal complication; erysipelas; paralysis of portio dura; inflammation of the femoral vein; albuminuria. A considerable list assuredly; but then several of these complications were observed only once. On the other hand, several of the deaths were manifestly due to the complications, as you will see further on.

The next point I wish to notice in regard to the course of typhus fever as observed in these cases (and it is one of such importance in a practical point of view that I shall have little else to bring before you to-day), concerns the *phenomena of the crisis* (so-called), especially in the cases which have ended favourably. As a great number of patients affected with typhus fever get well, while a certain proportion die, I need hardly point out the immense importance of noting the circumstances which determine one or other of these results, and particularly the symptoms which, in particular cases, give you the earliest assurance that the disease is going to abate. To this inquiry we have given particular attention, and the result is, in the first place, that the well-known term *crisis*, in the old and figurative but still strictly true application of it to some febrile diseases, is scarcely a description of what occurs in the fever with which we have had to do. Let me recall to your remembrance the meaning of that word. Etymologically it presents to the mind a mysterious supernatural authority or law—a Nemesis (let us say)—passing *judgment* on the issue of the disease, with power to make or mar, and that instantly. At a certain hour the judgment goes forth: "This disease shall depart, and the patient shall live." And forthwith the sentence is obeyed, the disease vanishes. That is, or was, the idea of a crisis, and it was further observed to be accompanied in many cases by certain evacuations which were called on this account *critical*, and supposed to be, in fact, the means by which the disease, or the material cause of the disease (*materies morbi*) was carried off or expelled from the body. I am not concerned at present either to attack or to defend this old pathology; but there can be no doubt that this idea of a crisis harmonized well with the facts of many fevers as observed by those ancient physicians. But in typhus fever, as we see it at present, there is absolutely no trace of a crisis of this rapid and decisive kind. The fever is not, apparently, judged or condemned, and forced to vanish suddenly, after the manner of an evil spirit fleeing from the sentence of an invisible power. Nor does the resolution of the fever almost ever take place in company with marked evacuations, such as could possibly have suggested the idea of a purification of the system from a "matter of disease." On the contrary, the whole process is devoid of startling phenomena; it is gradual, distributed over days, and often for days imperceptible to all but the most minutely accurate observation; there is neither sweat, nor diarrhœa, nor any striking change in the urine; and if any of these should by chance occur, they are just as likely as not to be non-critical and of unfavourable import. This is no new doctrine as regards typhus fever, but it requires to be brought into stronger relief than in most of the current authorities; and the facts of this particular epidemic, aided by the more general recollections of a good many years past, enable me to do this with perfect confidence as to the accuracy of the picture which I shall draw for your instruction, not from books, but from direct observation. For although the disease with which we have had to do has had no *crisis* in the ancient sense of the word, it has nevertheless had a very regular and *normal course of increase and decline*, to which I now invite your best attention. The character of the disease has been, that it rises, often with perfect regularity, though quite gradually or even imperceptibly, to what may be called an acmé; and then, with no less regularity, and not less gradually, declines towards the state of complete convalescence, often without any evacuations or sudden startling phenomena of any kind throughout. The rise and the fall of the fever are equally gradual; and the curve indicating the fever—if one might represent it roughly (but still truly) in the form of a diagram—would not be after the ancient idea of crisis, thus:



but rather thus:



an acmé, or single summit, or maximum point of development, being a characteristic of both the diagrams; but the one which represents typhus differing from the ideal one of a crisis in the perfectly gradual character of the decline. From this normal type I hold that typhus fever very rarely departs, unless disturbed either by complications or by injudicious treatment; and therefore it is literally of immense importance to your comfort and security in treating the fever, as well as to the patient's security, which is of more importance even than yours, that you should know accurately the rules by which you are to watch for this slow and gradual crisis.

Now, what are you to look to with the view of catching the first glimpses, the first favourable indications, of this important movement? I believe that, speaking practically, and speaking of the great mass of cases, it is *the pulse*. The internal heat, as determined by the thermometer, is, I believe, a very valuable indication;* but the thermometer is so much more cumbrous as a means of investigation, so much more difficult to apply, and takes up so much more time in the case of a busy practitioner having many cases to observe, that I believe the oldest of all studies in fever, that of the pulse, will hold its ground practically, at the bedside, and in ordinary investigations, against every other. It is easy, however, to study pulses in fever, without arriving at an idea of how valuable and delicate a test of the crisis we have in the pulse, when watched for days together, and in connexion with an estimate, as accurately made as possible, of the duration of the disease. Of this I am sure, because I have again and again had my own observations criticized and doubted by good observers, and have had to come back to nature again and again to establish to my own satisfaction the points to which I have now to direct your attention, as regards the pulse-rate in typhus. What I have now to tell you has been carefully tested by the facts of the present epidemic, but is also consistent with facts observed by me on various occasions, at least since the year 1857, and particularly referred to in a publication of the year 1859, on the history of epidemic fever in Edinburgh.†

There is one stipulation I must make with those who desire to follow out this inquiry with the view of testing the normal mode of the crisis in typhus fever. It is, that *as many cases as possible should be left to their natural course, unaffected by either drugs or stimulants*. Of course, I should never think of recommending to you this mode of proceeding unless I believed firmly that the disease could be so treated in many cases with advantage to the patient, as well as with increase of knowledge to the physician. But this is precisely what I do believe most firmly, and what I mean accordingly to occupy another lecture in impressing upon you by arguments drawn from experience. Meantime let me state, as matter of opinion, that not only am I convinced of the safety and expediency of leaving many cases of typhus to take their *normal* course, but I further believe the normal course may be very easily altered for the worse by what is called treatment; and in particular, as regards the period of the crisis, I believe that the habitual or constant exhibition of drugs and stimulants has a great tendency to mask the disease, to disturb or to retard the crisis, and by so doing to increase the mortality. This is an opinion formed after a most careful observation of particular cases in detail over many years;‡ and I advance it now, instead of waiting

* By a note just received (January 10th, 1865) from my friend, Dr. J. B. Russell, who has charge of the cases of fever at the Town's Hospital, I am glad to find that he is instituting a careful series of experiments on this point; and from the great experience already acquired by Dr. Russell, and his high character here as an observer, I look forward with great satisfaction to the results of his investigations on this subject.

† Edinburgh Medical Journal, July, 1859; and Clinical Medicine, 1862, p. 164.

‡ Not, as a late writer in THE LANCET has assumed, an opinion founded merely or mainly on statistics. I will add, even at the risk of appearing egotistical, that my previous writings, both on fever and on the fallacies of

till next lecture for its fuller development, chiefly in order to add, that you cannot possibly observe the natural course of typhus unless you can make up your mind beforehand to leave many cases to follow their natural course. I am fully convinced that there are many practitioners who scarcely ever see a normal case of typhus, owing to their perpetual and systematic interference by drugs and stimulants; and it is even a question with me if the written descriptions of previous epidemics have not been largely vitiated by this cause, the disease being to some extent, as it were, disguised, or perverted from its natural and favourable course, by the treatment. How far this may have been so in fact I have no means of knowing exactly; but I have had abundant opportunities since the year 1837 of ascertaining that typhus fever, both in Edinburgh and Glasgow, has followed the normal course now about to be briefly indicated.*

There are, however, one or two further precautions that must be taken before you can hope, I do not say to avoid disturbing the crisis in typhus fever, but to avoid killing your patients outright, or rather, letting them die of sheer neglect. You must feed your patients, and you must feed them chiefly on milk. Milk or buttermilk is with me the staple food in typhus; and I will even say that I know no other food that can be depended on. Yet I see, and always see with a new surprise, descriptions of the treatment and dietetics of fever in which not a word is said about milk, and a great deal about beef-tea, wine, whisky, brandy, and all manner of things supposed to be more strengthening, or stimulating, than milk diet. Now, I tell you frankly that treating fever patients without plenty of milk is a thing that I do not understand at all; for I suppose I have not treated a single case of fever of any kind for the last fifteen years (I cannot make precise statements beyond that date) without milk, and I always proceed on the understanding that milk in fever is the one thing needful as diet—always to be given, and given liberally, whether specially ordered or not. To give wine, whisky, and beef-tea, while withholding milk, is simply, in my opinion, to destroy your patient; and the more wine or whisky you give, while withholding milk, the more sure you will be to destroy your patient soon, because you are thereby superseding the natural appetite (or what remains of it) for a nourishing and wholesome diet, by a diet—if it can be so called—which poisons the blood and checks the secretions, and alters for the worse the whole tone of the nervous system and of the digestion and assimilation. I believe that infinite mischief has been done in typhus fever, and in all fevers, by giving wine, and withholding or not giving milk. Under a false theory of administering alcoholic food, it has resulted, not only that natural and genuine food has been withheld, but that the small remaining amount of appetite for such food has been obliterated, and not unfrequently, even at an early stage of the disease, the patient has been practically disabled from taking any proper nourishment at all. I know, unhappily, as a fact, that not only doctors, but nurses and patients and patients' friends are readily brought under the influence of this fatal delusion, that alcoholic liquors can, in fevers, take the place of natural food. But it is none the less a fatal delusion, and I warn you solemnly against it; all the more that the patient is absolutely in your hands, and you can obtain no guidance from his natural instincts, if you begin by overwhelming them with large doses of alcoholic stimulants. I have been very careful, at least for fifteen years past, to avoid this error, and I believe that any success I may have had in managing fever has been more due to this than to any other cause. But I allude to the matter now simply to say that if you would observe the natural or normal course of typhus fever, with respect to the crisis (as proposed at present), you must absolutely make up your mind to feed your patient naturally, and not to stimulate him. An opposite course leads to consequences which I may consider more in detail on another occasion; but what I am anxious to say now is, that it tends to disturb the course of the fever, and to retard the crisis.

Further, you must, if you would observe the natural course of typhus fever, give your patient plenty of fresh air. This is now so very general an admission that I need hardly have alluded to it, were it not that adequate ventilation is still apt to be forgotten in treating fevers in the houses of the poor or in badly constructed hospitals. With adequate ventilation, you must of course, especially in winter, have the means of warmth; and great attention must be paid to cleanliness, so far as this is possible in bedridden and exhausted patients.

These, I think, are all the precautions necessary, I do not say for the proper treatment of typhus fever, but for the proper observation of its natural course in normal cases.

Now I venture to assert—and I make this assertion not by way of theory or opinion, much less prediction, but as a statement of facts, founded on a rather extensive experience ever since 1855 or 1857—I venture to put it forward as a law, or generalization, with respect to typhus fever: *That in a large proportion of cases typhus fever, left to its natural course, and treated with abundant milk diet and without drugs or stimulants, will have its natural crisis before the twelfth day.* Of course you will understand that I use the word *crisis* in a modified sense; for I have just been explaining that there very rarely is in typhus a true crisis, in the ancient sense of the word. What I mean is, that most commonly before the twelfth day, very frequently as early as the ninth or tenth day, sometimes, though rather rarely, even before the ninth day, indications are to be perceived that the disease is about to terminate favourably; and that these indications are to be trusted, even when some of the most formidable-looking symptoms continue present to a later period. And this I confidently assert to be a very general law, or *norm* (to use a word borrowed from the Latin, but not yet naturalized in English, except in the adjective form *normal*), of typhus fever as observed in Edinburgh and Glasgow of late years. Observe, I do not venture to assert that it has always been so, or will always be so; on the contrary, I have myself remarked the tendency to a delayed crisis as an epidemic fact at certain seasons; but in a large proportion of cases, and excluding certain exceptional groups of cases, it has been so, in the main, in every year from 1857 to 1862 in Edinburgh, and during a large portion of the epidemic of the last two years in Glasgow.

If you wish to have the satisfaction of getting the earliest information of this early crisis in typhus, *watch carefully and constantly, from day to day, or several times a day if need be, the rate of the pulse.* For this is, speaking practically, the guiding clinical fact in the natural history of typhus fever. Making allowance for certain obvious, and a few not so obvious, causes of accidental disturbance, you will find that the pulse pursues a very regular course of rising frequency up to the acmé, and declining frequency beyond the acmé, of the fever; and that although the other symptoms very surely follow the pulse in uncomplicated and regular cases, yet they often follow at some distance behind: so that the crisis can be ascertained for practical purposes, and particularly for the great purpose of guiding treatment, more accurately and effectually by frequent noting of the pulse-rate than by any other method. I have ample proof of this in the cases of the last two months, for which I will refer you to the hospital case-books, and to the abstract in the *Glasgow Medical Journal* for January, 1865.*

This accurate and frequent noting of the pulse-rate in typhus, in connexion with the day of evolution of the disease, is of immense importance as regards the prognosis; for not only are

the statistical method of observation in therapeutics, ought to have protected me against this insinuation; and as the whole course of the writer's arguments against "the application of statistics for the using of wine in typhus fever" is founded on the erroneous assumption that I have used and disused stimulants without regard to individual or epidemic peculiarities, while (as he asserts), "*contrary to the whole tenor of the paper*, the use of wine in fever is a very complicated problem," I am content to leave to the reader or to Dr. Henry Kennedy himself, after perusal of the article in the "Glasgow Medical Journal," the question how far this is a fair, not to say liberal, construction of the general sense of what I have asserted in the paper in THE LANCET and elsewhere on the use and abuse of stimulants. The question is one of far too great importance to be settled by mere personal controversy; but I have too great respect for Dr. Kennedy as a laborious and well-tried observer to allow his free and easy handling of my statistics to pass without this brief protest.

* I substitute here for the details of cases given at large in the lecture-room a more general statement with reference to the "Glasgow Medical Journal," keeping closely, however, to the essential facts brought forward in the lecture, and reported *verbatim* in an elaborate and careful MS. now before me by Dr. Wyber, to whose great industry and varied accomplishments I have often been greatly indebted for valuable assistance in teaching.

* See especially the cases enumerated in p. 421, which comprise a list, not of the whole, or nearly the whole, but only of those which could be pretty clearly and definitely ascertained to have had a crisis before the twelfth day. It is needless, and would be very fallacious, considering the difficulties that are well known to observers in fixing the date of the fever in many instances, to attempt an exact numerical estimate; but among the males, 33 out of the whole 88 cases of typhus fever could be clearly indicated as having this early crisis, and in no one of these did any retrograde movement occur as regards the pulse, though in many of them the other symptoms of improvement were long delayed. Among the females the proportion of early crises was smaller, and perhaps also the individual observations were somewhat less minutely detailed in some of the cases, so that only 18 cases of early crisis are clearly definable among 51 cases of typhus fever. Read in particular (*Males*) Cases 6, 11, 28, 30 (day not quite certain, but early, though delirium protracted), 61 (dangerous bronchitis, but still early crisis); (*Females*) Cases 17, 20 (misprinted 29), 22, 33. Several of these cases were read and analysed in detail in this lecture as delivered, but I have deemed it expedient in revising for the press to omit the details of cases, and alter considerably, in accordance with this omission, some of the preceding paragraphs.

you able to predict the recovery with greater confidence, and at an earlier period, than you could do otherwise, but you have often the first intimation of complications, either during the fever or during the convalescence, through some unaccountable departure from the *norm*, or regular gradual increment and decrement, of the pulse. In fatal cases, where the death is from *pure* typhus, the pulse usually becomes more and more rapid, and at the same time weaker and smaller, up to the very hour of death. In complicated cases, where the complication is not very dangerous, the pulse may be merely quickened for a day or two, or the crisis may be protracted, or the pulse may begin to rise again, after a quite distinct critical subsidence. In very dangerous complications the pulse is out of all bounds, and no rule can be assigned for its irregularities. But in regular and normal cases, being uncomplicated—i. e., not having any positive organic or inflammatory complication,—the decline of the pulse, even by a few beats, before, at, or about the twelfth day, carries as an after consequence the decline of the fever; and, on the other hand, a delay of the crisis very much beyond this is to be regarded with suspicion, though not by any means necessarily of fatal tendency.

But the most curious inference which I have been able to draw from the cases of typhus which we have been observing for the last two months is this:—If, in a particular case, you observe that the pulse keeps steadily to the *norm* or law of uncomplicated typhus, as I have endeavoured to exhibit it; if the rate of the pulse increases steadily and gradually up to the ninth, tenth, eleventh, or twelfth day, and then, at any period between the eleventh and fourteenth day, is observed to be undergoing a correspondingly regular decrease, not rapid, but regular and gradual; *in such a case of regular crisis indicated by the pulse-rate, it is almost insignificant, as regards the prognosis, that the other symptoms continue formidable-looking for days*; for in all such cases that I have observed, without exception, the patient has got well in the end, and that without further treatment. Thus I can tell you from experience that, after a regular crisis of this kind, the tongue may be as black as pitch, and so dry that it feels like a bit of roasted leather, delirium may go on, the patient may be out of his bed many times in a night, the skin may be hot and dry, the eruption brilliant or livid for days together; still, if you have the favourable state of the pulse, and if there is no complication, *the patient will get well*. The pulse is your criterion. Whenever it is fairly turned, and declining in rate, especially if it is at the same time gaining in strength and volume, you may be at your ease, unless there is reason to suspect a complication; and even then you may be at your ease, if the complication is not severe. But observe, *only if you do not interfere*. The proper course in such a case is to take confidence from the pulse, and avoid interference. *You can afford to wait*. And only one more word to-day, but it is a very startling one, and yet true according to my experience: even if the delirium should become worse after the crisis, as indicated by the pulse; nay, more, even if the patient has had little or no delirium before, and *begins* to be delirious for the first time after the pulse has begun to show symptoms of crisis; still, it is better to wait, for in all probability he will be quite well in a few days, provided you do not disturb the course of the fever.*

CONTRIBUTIONS TO THE PRACTICAL SURGERY OF DISEASES OF CHILDHOOD.

BY T. HOLMES, M.A. CANTAB.,

SURGEON TO THE HOSPITAL FOR SICK CHILDREN, AND ASSISTANT-SURGEON TO ST. GEORGE'S HOSPITAL.

No. V.—ON THE TREATMENT OF CARIES OF SINGLE BONES OF THE TARSUS AND METATARSUS BY EXCISION OF THE ENTIRE BONE.

The treatment of caries in young subjects offers many points of great interest, and some, it must be confessed, of almost equal ambiguity. One of the first points to which the surgeon's attention must always be directed in such cases is, to ascertain whether the affection of the bone is merely one of the consequences of constitutional cachexia, and therefore is (in strictness of language) a symptom merely; or whether, on the contrary, it results from local injury or other limited cause, and therefore is the essential disease. Although this is a matter which can only be settled by careful inquiry into the symptoms and history of the individual case in hand, still some general ideas on the subject will not be without their use. I am disposed to believe that we are too apt to regard all carious disease in childhood as "strumous," and that the common use of this convenient term has led us to unduly depreciate local measures. There is, on the contrary, very good reason for believing that in many of the cases so described no symptom of struma or of tubercular disease has ever existed, and that the removal of the part affected will place the child in a condition of perfect health. It is quite true that in many cases such removal is not necessary, and that spontaneous cure will take place if the part be kept at complete rest for a long period. I am not, however, speaking here of such slighter cases, but of those in which a great part, if not the whole, of one or more bones of the tarsus or metatarsus is carious, and where rest, or partial removal combined with rest, has failed to bring about recovery. I say that in a very large proportion of such cases there is good reason for tracing the disease to a local injury; and that the total removal of the bone is much preferable to the use of the gouge and chisel.

In the first place, with respect to the essential nature of the disease, whether constitutional or local, parents and friends of sick children attribute any local ailment, as a matter of course, to one of the slight accidents which so often happen to children, especially those of the poor. The connexion, however, between the alleged cause and effect is in so many instances imaginary that the statement is often passed over as not worth attention; yet in many cases, when an investigation can be made, it will be found to support the parents' view of the case. Where the child's friends are careful and intelligent persons, we shall often be able to trace the perfect health of the child and the perfect usefulness of the limb before the accident; the clear evidence of injury limited to the seat of the present disease; the persistent thickening, with pain and redness, gradually leading to loss of function, and slowly ending in abscess. All this time the general health has been unaffected, unless by pain and confinement. If an operation be performed on a case of this kind, and end fatally, we do not usually find any indication of strumous disease in other parts of the body. If it end fortunately, the child is restored to perfect health. The confinement and suffering through which he has passed of course leave him weakly, and therefore exposed to the invasion of disease; but nothing shows that he has any special tendency to phthisis, or glandular affection, or any of the other well-known tubercular or strumous diseases. My own conclusion from the results of my experience (although on such a point as this individual experience is an unsafe guide) is, that such children are often carried off soon after their recovery by acute affections, but that they very rarely come under treatment for strumous disease. If the fact be so, it is entirely consistent with the theory of the local nature of the disease, but quite irreconcilable with that of its constitutional origin. Restoration to health and activity induces the child to join eagerly in the sports and exercises from which he has been long excluded, and thus he exposes himself, while still too delicate to bear such exposure, to the influences of over-fatigue and change of temperature. But if it be a fact that such children rarely suffer afterwards from other strumous diseases, this would be inexplicable on the supposition that the original affection depended really on a constitutional cause. Long confinement to bed, protracted discharge, extensive operations, and loss of blood, are not much calculated to eradicate the strumous taint from the constitution; so that, if the disease really depended on such a taint, a relapse after operation for strumous joint should be about as common as after one for cancer; yet everyone knows that this, at least, is not the case. Tubercular disease, it may be objected, does often coexist with disease of the joints of the kind usually denominated "strumous." This is true, but would at the most prove no more than that strumous children are liable to be affected by these low inflammations. It would not of itself prove that these low inflammations are excited by the strumous diathesis. But we may, I think, go a step farther, and say that there is often very good reason for believing that the tubercular disease of the viscera, so far from being the cause, is, in truth, the effect of the disease in the joint. This would be more and more the case according as the joint affected is more important, and the symptoms produced by its affection more acute. Thus the extensive suppuration, great pain, and profound constitutional disturbance which often attend morbus coxarius, render that disease, as I believe, peculiarly liable to be followed by consumption, and make it the more

* See Cases 30, 31, 33, 35, 38—*males*, for evidence of the statements in this last paragraph.

incumbent on the surgeon to endeavour to rescue his patient by operation at the earliest possible moment after he has convinced himself that the disease is otherwise incurable. This point I have dwelt upon in my last paper (THE LANCET, vol. ii., 1864, p. 236). In diseases of the knee in childhood there is usually far less constitutional disturbance, and seldom any exhausting suppuration; and in affections of the smaller joints the general symptoms are even less prominent. Yet it should not be forgotten that the loss of exercise is in itself a most unnatural and undesirable thing for a growing child, and, if only on that account, it is advisable to cut short the period of disease by any operation which does not entail mutilation or loss of function.

If the reader is inclined to think these observations self-evident, I would beg him to consider whether they are consistent with the ordinary practice of surgery in caries (strumous caries, as it is almost universally called) of the bones of the tarsus. This disease I believe to be, in the majority of instances, caused entirely by injury occurring to a child who is probably weak and delicate, but not necessarily strumous, if by that term be understood "prone to the deposition of tubercle in the viscera." Being caused by local injury, the disease is at first limited to the bone injured, or possibly affects two contiguous bones—rarely more. In the great majority of cases, I believe, the disease begins in the substance of the bone, not in any joint. If the diseased bone be not removed, or the disease do not undergo spontaneous cure, it spreads slowly until neighbouring joints are affected, and their synovial membranes become converted into the pulpy granulation-tissue so familiar to us in this disease. These granulations propagate the disease to other bones and joints till a large part of the tarsus is implicated. Then the ankle-joint itself becomes involved, and the foot must be amputated. At each of these successive stages the disease is usually quite limited. In the first period, the neighbouring tarsal joints will be found healthy; when the tarsus is extensively implicated, the ankle-joint is in most cases still unaffected; when the ankle also is diseased, the disease does not extend upwards beyond the lower epiphysis of the tibia; and at any of these stages the total removal of the diseased bones is usually effectual in permanently arresting the disease.

With these views of the nature of carious ulceration of the bones of the tarsus in children, I need hardly say that I consider local interference by operation to be indicated at the earliest possible moment, in all cases where general symptoms are absent, and where the disease, after a reasonable trial of rest &c., is not undergoing a spontaneous cure.* It is useless to confine the child to bed in hopes of the separation of a sequestrum; for the disease may go on for an indefinite period, to the destruction of the whole mechanism of the foot, without the formation of any sequestra, and the sequestra which do sometimes form are generally only secondary formations, the removal of which does not cure the disease. If, on the other hand, the diseased bone be completely removed, so that only perfectly sound and healthy parts are exposed in the wound of the operation, the disease will usually be at once arrested; and when the cavity has filled up, the child will be quite well. If a sequestrum exists, it should of course be removed; and if the neighbouring bone appears softened, it should be scraped. Also, if the caries does not affect a great part of the bone, the common practice of gouging out the carious spot should be first tried; but it is seldom successful. In cases of caries limited to the surface of the bone, the actual cautery has proved occasionally successful at the Hospital for Sick Children. But what I wish chiefly to urge in the present communication is the great advantage to be derived, in cases where the greater part of any of the tarsal or metatarsal bones is carious, from the removal of the *whole bone*. In a previous paper "On Excision of the Hip," I have pointed out, as one of the great obstacles to success in that operation, the uncertainty which must always exist as to the extent to which the softened bone usually found in the acetabulum requires removal—that is to say, how much is incurably disorganized, and how much will recover if the other diseased parts are removed. In consequence of inevitable errors on this head, we often find that the exposed sections of bone take on the same carious action as the original joint-surfaces, and the operation is partially frustrated. The same is the case in the gouging operations practised on the tarsus. But in the case of the hip, we have no choice; in that of the tarsus usually we have. When only one bone, or only two contiguous bones, are affected, it is usually easy to remove the whole organ diseased; and when this is done—that is to say, when a wound is left which contains nothing but the soft parts and the healthy articular cartilages of the contiguous bones, I have never yet seen a case in which the wound did not heal soundly, and I believe permanently; and this is, therefore, the practice which I now always adopt in cases where limited disease of the tarsus affects only one bone to a considerable extent. Such cases are, I repeat, very common in childhood.

Some surgeons believe that to leave articular cartilage exposed in a wound is dangerous. This idea appears to be derived from the false analogy of wounds of the knee-joint, and of the symptoms attributed to inflammation of its cartilages. It is remarkable that the every-day experience of amputations performed through joints should not have shown that it is an error. A wound almost surrounded by exposed articular cartilage will heal without any bad symptom. Thus, in a case in which I excised the astragalus and scaphoid bones, leaving exposed in the wound the whole cartilaginous surface of the tibia and fibula above, the cartilaginous facets of the os calcis below, and those of the three cuneiform bones in front, all of these cartilages being natural, no unusual amount of inflammation took place, and the healing process, though it went on slowly, met with no impediment. In another case I had an opportunity of examining the stump of an amputation through the knee-joint, in a child between two and three years of age.* The child died from constitutional causes forty days after the amputation; but the stump had healed seventeen days after the operation, with remarkably little inflammation; and the patella was found as freely movable in the stump as in the natural joint, nor was any trace of inflammatory degeneration of the cartilages noticed.† Again, although the cases on record are too few to form the basis of a decisive opinion, it may be reasonably alleged as probable that a wound in which no bony tissue is exposed is more likely to heal kindly and soundly, and is less liable to pyæmic infection, than one where a large surface of cancellous bone is laid bare, with all its cells cut open. How often we see such wounds sluggish and refusing to unite. How often the divided bone participates in the inflammation going on around it, softens, and finally becomes carious; or dies, and has to exfoliate. And if this is the case with healthy bone, when exposed and divided in operation, it is still more often the case with bone already softened by low inflammation.

(To be continued.)

* It has become almost a matter of routine to give such patients cod-liver oil, or iron, or iodine in combination with one or other of the former; and, when such medicines agree with the child, they are no doubt useful in giving him strength to endure the depressing effects of the disease; but I have never seen the least reason for thinking that they have any effect on the diseased bone.

* Path. Soc. Trans., xiv., 217. The preparation is preserved at the Hospital for Sick Children.

† At the time of writing these lines, there is an adult in St. George's Hospital, under Mr. Pollock's care, with amputation at the knee-joint (by the anterior flap), in whom the wound has almost united in three weeks.

ON THE

DIFFERENCES BETWEEN WHOLESOME AND UNWHOLESOME AIR.

BY J. A. WANKLYN,

PROFESSOR OF CHEMISTRY AT THE LONDON INSTITUTION.

DAVY showed, a long time ago, that the proportion of carbonic acid in respired air may be very much augmented without any physiological result. According to his experiments, as much as 20 per cent. of the atmosphere may consist of carbonic acid without injury to the animals breathing it. If anything like this amount of carbonic acid produces so little effect upon us, what shall we say of the 0·5 per cent., which is almost the highest per-centage of carbonic acid ever found in an ill-ventilated and crowded room in this country? And what shall we say of the assertion that the difference in salubrity between the air in the neighbourhood of a "midden" and the air "over North Scotland (towns excepted)" is due to the circumstance that there is 0·0774 per cent. of carbonic acid in the former, whilst the latter contains only 0·0336? In a recent number of the *Chemical News* (Dec. 31st, 1864) I find an account of a paper of Dr. Angus Smith "On the Composition of the Atmosphere;" and it appears from this account that he attributes the wholesomeness or unwholesomeness of

different atmospheres to minute differences in the per-centage of carbonic acid. Although we meet with statements of this sort in the manuals (in Odling's manual for example, p. 217)—"a confined atmosphere is rendered unwholesome, not by a consumption of its oxygen, but by an increase in the proportion of its carbonic anhydride, effected by the processes of respiration and combustion,"—I cannot understand how Dr. Angus Smith, who has moreover made a special study of the various states of the atmosphere, could fall into so desperate an error. And although the plain sense of the paper is, that minute quantities of carbonic acid are the cause, or part of the cause, of the physiological differences between different atmospheres, surely he could not mean more than that these minute quantities of carbonic acid are *concomitant* with the physiological effects. And surely the utmost that Dr. Angus Smith will think of maintaining will be in substance this: the deficiency of oxygen in the atmosphere of towns and of crowded rooms is so small that it can produce no physiological result; the excess of carbonic acid is also too small to act physiologically; yet this deficiency of oxygen and this excess of carbonic acid, being almost invariably found in company with the deleterious thing which spoils the atmospheres of towns and of crowded rooms, may be taken as an index to the amount of deterioration which a given atmosphere has undergone. Even this proposition, under this limitation, I call in question, maintaining that the oxygen and carbonic acid criteria are very untrustworthy indices to the state of salubrity of the atmosphere.

I will content myself with pointing out two striking absurdities which flow from the adoption of these indices:—

1st. That the air on the Alps is far more pestilent than the air in the immediate neighbourhood of a Manchester "midden," or the air of a close room.

2nd. That air taken from a court-yard is one day as wholesome as air from the open heath, and the next as pestilent as that from a back street in a town.

In truth there are many causes which determine the precise quantities of oxygen and carbonic acid in the atmosphere, and the per-centages of these two gases found in the air of a given locality are a very poor guide to the quantity of carbonaceous matter undergoing slow combustion.

Before any real knowledge of the pestilent matters which cause the deterioration of the air in towns and close rooms can be arrived at, chemists must investigate the subject in a very different manner from that which they are too prone to adopt. Just as the difference between one mineral water and another depends not upon any difference in the proportions of oxygen and hydrogen composing the water, but upon the presence of very minute traces of salts of different kinds, so the difference between the atmosphere in one locality and another is due to minute quantities of very active gases, vapours, or dust, and not to the relative proportions of nitrogen, oxygen, and carbonic acid. It is not at all improbable that the presence of minute traces of carbonic oxide (a very active poison) may have a great deal to do with the deterioration of the atmosphere in ill-ventilated rooms. But whether it be traces of carbonic oxide or of prussic acid, or of something else which are at the root of the immense physiological difference between the atmospheres of various localities, certain it is that the air of a crowded room is not bad by reason of its carbonic acid or of any deficiency in its oxygen.

London Institution, Jan. 1865.

SANITARY MEASURES RESPECTING SHIPS ON WHICH EPIDEMICS HAVE REIGNED.—M. de Méricourt proposed, before the Academy of Medicine of Paris, at a late meeting, to supply labourers employed in unloading such ships with an air box invented by M. Bouquaytol. The box contains compressed air, which is gradually supplied to the individual at work as necessity arises. Hence the chances of infection from the air of the hold of the vessel are greatly reduced. To purify the ship thoroughly, after unloading, M. de Méricourt advocates the method of M. de Lapparent. This consists in superficially carbonizing the inner parietes of the vessel by means of singeing with a forced inflammable gas.

VACCINATION AND SYPHILIS.—An important discussion is now pending at the Academy of Medicine of Paris. M. Depaul, one of the members, and reporter on the progress of vaccination, has incorporated in his report the late calamitous propagation of syphilis by vaccination. He expresses himself very strongly on the subject, and is likely to perplex very much the secretary-of-state to whom the report is addressed. M. Ricord lately, in an excellent speech, combated the views of M. Depaul, and a lively debate is expected.

A Mirror

OF THE PRACTICE OF

MEDICINE AND SURGERY

IN THE

HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

EIGHT CASES OF CALCULUS IN THE BLADDER, INCLUDING ONE OF FORTY-TWO URIC-ACID CALCULI, AND ANOTHER IN WHICH THE STONE WAS COMPOSED OF CYSTINE.

(Under the care of Mr. BIRKETT.)

IN a few words an outline is here given of eight cases of calculus, all of which were submitted to lateral lithotomy by Mr. Birkett, with recovery, excepting in one instance, which was that of a man of seventy-two years, from whose bladder as many as forty-two uric-acid stones were extracted. The patient lived nineteen days, and at first progressed favourably. The number removed is large, but the aggregate weight was only eighteen drachms. Nevertheless, so many calculi in a single bladder is not a common occurrence. In another case of not less interest the stone was composed of cystine, in a child aged five years, and a good recovery ensued after the operation. In the first case noted, in a man of thirty-four, a mulberry calculus had been present for probably the long period of twenty-three years.

CASE 1. Jan. 1863.—A healthy carman, aged thirty years, residing in London, seemed to have had stone for twenty-three years, judging from the description he gave of his symptoms. An oxalate-of-lime calculus removed, a very fine specimen. Weight, 12 drs.; measured, $1\frac{1}{4} \times \frac{3}{4}$ in. He recovered without an untoward symptom.

CASE 2. Jan. 1863.—A gardener, who had enjoyed good health, was seventy-two years old, and had lived in a small village in Surrey, seemed to have suffered with stone for six or seven years. He was a fine robust man, rather fat, and had a large prostate. He had suffered much the last few months. Mr. Birkett removed forty-two uric-acid calculi, weighing 2 oz. 2 drs.; the largest measured $\frac{3}{4} \times \frac{1}{2}$ inch, the smallest about $\frac{1}{4}$ inch. All had facets. He progressed satisfactorily for several days, became feverish and depressed, and lastly died nineteen days after the operation.

CASE 3. May, 1863.—A child, four years old. Symptoms some months. Removed a single uric-acid calculus. Weight, 52 grs.; measured, $\frac{3}{4} \times \frac{1}{2} \times \frac{3}{4}$ inch. He left the hospital well.

CASE 4. Jan. 1864.—A delicate boy, fourteen years old. From his mother's statement he has suffered for six years. Two uric-acid stones were removed, both prismatic, with blunted ends, something like Brazil nuts. Each weighed about 4 drs. One measured $1\frac{1}{2} \times 1$ in.; the other $1\frac{1}{4} \times 1$ in. He recovered slowly, rather from constitutional than local causes, and left the hospital well.

CASE 5. Feb. 1864.—A male child, two years and six months old. He had a single uric-acid calculus removed. Weight, 40 grs. It measured $\frac{3}{4} \times \frac{5}{8} \times \frac{5}{8}$ in. He left the hospital well.

CASE 6. Feb. 1864.—A boy, aged eleven years. A single uric-acid calculus, coated with phosphatic crystals, was removed. It was remarkably elongated, and shaped to the bladder. Measurement, $1\frac{1}{16} \times \frac{5}{8} \times \frac{5}{8}$ in.; weight, $1\frac{1}{2}$ dr. Left the hospital well.

CASE 7. Nov. 1864.—A male, aged two years and six months. Removed one uric-acid calculus. It weighed 50 grs., and measured $\frac{5}{8} \times \frac{1}{2} \times \frac{1}{2}$ in. He recovered, and left the hospital well.

CASE 8. Dec. 1864.—A boy, aged five years, delicate. Removed a calculus of cystine. Symptoms about six weeks. Single stone, weighing 36 grs.; granular crystallization. Well

GREAT NORTHERN HOSPITAL.

CALCULUS IN THE BLADDER, OF SMALL SIZE, EXTIRPATED BY A SINGLE CRUSHING WITH THE LITHOTRITE.

(Under the care of Mr. T. C. JACKSON.)

FROM the history and symptoms in the following case (the notes of which were furnished by Mr. C. V. Willett, the house-surgeon), it is probable the patient has passed small calculi from the kidneys to the bladder, and thence with the urine, without being aware of it. A small calculus was detected on his admission, and on submitting him to lithotrity its consistence was found to be so soft that Mr. Jackson at first believed that it had slipped out of the blades of the instrument each time it was caught. That it was, however, crushed twice was proved by the result of the operation; for all the fragments passed subsequently in the urine, and no further remains of the stone were felt on introducing a sound.

The last two cases of stone for which lithotomy was performed at this hospital by Mr. Jackson, and which were recorded in our "Mirror," have remained free from any return. We have heard that gentleman clinically remark that of the thirteen cases which he had submitted to lithotomy, not one terminated unfavourably; and, curiously enough, the ages of his last three patients were respectively seventy-four, seventy-three, and seventy-two years.

Richard C——, aged forty-five, admitted July 30th, 1864. A pale, unhealthy-looking man. Thirteen years ago he began to suffer severe pain in the back and loins, for which he was treated in various London hospitals for supposed spinal disease, but without any beneficial result. The only medicine which afforded him any relief was castor oil in large doses. His urine was always high-coloured. He went on in this miserable state until four years ago, when he passed a quantity of blood with his urine, and this continued for the space of two years, at the expiration of which time it entirely ceased. The constant pain in the back, however, has never ceased to trouble him, until ten days ago, when it suddenly left him and the symptoms of stone appeared.

On passing a sound into his bladder, a small calculus was distinctly felt.

He sleeps much sounder now, and in fact feels like a different man altogether. Bowels regular; urine thick, non-albuminous; appetite capricious.

Aug. 3rd.—The patient having retained his urine for three hours, Mr. Jackson introduced a small fenestrated lithotrite, and succeeded, after the method of Civiale, in seizing the stone twice, which, however, appeared to escape from the blades on closing them. Mr. Jackson remarking that he was not certain that the stone had been reduced, no further attempt was made to crush it. Twenty minims of tincture of opium were ordered to be taken in a glass of hot brandy-and-water. — Nine P.M.: No rigors; expresses himself as quite comfortable; has cutting pain during micturition, and has passed some fine portions of stone. The anodyne to be repeated.

6th.—Several portions of stone have come away, which from their appearance would indicate that the stone is thoroughly broken up.

7th.—Small pieces continue to be voided.

10th.—The patient was again placed on the operating-table and a lithotrite introduced, but no stone or portion of one could be felt. Bodily health much improved; urine clear.

12th.—Discharged. Urine clear and normal; no pain; no sign of a stone to be detected.

THE PERILS OF PRACTICE.—It is understood that Mr. Charles Squarey, the physician and house-surgeon of the Fever Hospital, is now lying dangerously ill from a violent attack of typhus fever, which he has no doubt taken in the discharge of his onerous and dangerous duties. Mr. Squarey for many months during 1863 acted as one of the resident surgeons of the hospital, so that this is a second occasion upon which he has so courageously volunteered to do battle against the insidious attacks of fever to which the unusually numerous patients admitted into the hospital during the last year have been subjected. Mr. Moore, one of the house-surgeons at St. Mary's Hospital, Paddington, is also suffering from a severe attack of typhus, contracted in discharge of his duties.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JAN. 10TH, 1865.

MR. PARTRIDGE, F.R.S., IN THE CHAIR.

ON ECZEMA OF THE EYELIDS, CONJUNCTIVA, AND CORNEA.

BY FURNEAUX JORDAN, M.R.C.S.,
SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.
(*Communicated by* E. H. SIEVEKING, M.D.)

MANY observers, and especially writers on diseases of the skin, have considered ophthalmia tarsi to be simply eczema of the lids. Dr. Mackenzie has pointed out that scrofulous, or as he terms it, phlyctenular ophthalmia, is frequently associated with eruptions on the skin. It is the object of this paper to show that not only ophthalmia tarsi is eczema of the lids, but that granular lids, a peculiar swelling of the sub-integumental connective tissue of the lids, lippitudo, strumous ophthalmia, certain forms of simple or catarrhal ophthalmia, keratitis and strumous keratitis, and certain ulcers on the cornea, are merely varieties of eczematous disease. Cases of extreme, firm, indolent, pale or pinkish swelling of the lids, occur occasionally, the only cause of which is eczema of the margins of the lids. The eczema may be very slight, or it may pass away quickly, and leave only the swelling behind. Unchecked eczema of the eyelids terminates in lippitudo just as persistent and progressive eczema of the cornea produces pannus. Both these conditions are analogous to the eczematously red, swollen, and moist condition of the skin which may persist for an indefinite period. Eczema of the conjunctiva presents many important features. The so-called strumous ophthalmia may be regarded as chronic eczema. The several stages of pimple, vesicle, ulcer, or thickened patch, admit of indisputable demonstration. In acute eczema of the conjunctiva, there is for a few days a uniform scarlet colour; then a crowd of vesicles, which soon pass away, and leave an irregular or patchy redness — each patch, however ill-defined, having a redder, thicker, and possibly ulcerated centre. These cases have a slight muco-purulent discharge, and are always tedious. If treated as eczema, they speedily recover. The so-called keratitis, or strumous keratitis, is eczema of the cornea. When vesicles, white patches (necessarily white because of the anatomical structure of the cornea), or ulcers occur on the cornea in conjunction with vesicles on the conjunctiva, the term scrofulous ophthalmia is commonly used. If the same pimples (necessarily flat), vesicles, patches, or ulcers occur on the cornea alone, especially near its centre, the term keratitis is applied, notwithstanding the symptoms are similar, and notwithstanding that there is usually, if it be carefully sought for, evidence of eczema of the lids or face, or ears or scalp. The characters of eczema of the cornea are quite as typical as they are of eczema elsewhere. The several varieties of eczema of the cornea, conjunctiva, and lids are combined in a great variety of modes. They are much more frequently combined than not, and very frequently indeed associated with cutaneous eczema in its favourite localities. Eczema is often limited to sites as small as the cornea. The treatment should be directed to eczema. Its chief features are non-stimulating diet and alkaline medicines, with a little iron added in most cases. If the lids are affected, as also in pannus, lippitudo, and granular lids, a little of any of the "eczema ointments" may be used, with the customary attention to details; if much photophobia, a little morphia may be given in the morning.

The PRESIDENT said he supposed the author's communication was intended to show that many cases of strumous ophthalmia were really eczema, and that this was proved by the fact that there was in such cases eczema elsewhere.

Mr. JORDAN said the President had correctly apprehended the purport of his paper. It might seem strange to say that such diseases as pannus, keratitis, &c., were in reality eczema; but, from the arguments he had stated in the paper, he believed that conclusion was warranted.

Mr. BARWELL had no doubt but that any new view of so common a disease would be considered important; but he thought the author had taken too many cases into the grasp of one hand. He (Mr. Barwell) could not think that granular lids and strumous ophthalmia belonged to the same category. He thought the author had not sufficiently distinguished herpetic eruptions from eczema. He was surprised to find the

author describing a long treatment by alkalies and iron for a disease like phlyctenular ophthalmia. He considered the disease to be herpetic, and that the photophobia attendant on it might be relieved by treatment in twelve hours. As for the connexions of certain ocular affections with eczema, they might arise from similar general conditions of the system, and alkalies might be of use. Yet he should not be inclined to treat phlyctenular ophthalmia on the slow method recommended by the author.

The PRESIDENT hoped that before long the time would come when ophthalmic surgery would be free from the frightful nomenclature which did not afflict other branches of surgery.

[We have received the following in reference to the discussion on this paper:—]

"Birmingham, January 13th.

"Sir,—Had time permitted, I intended to say, in reply to Mr. Barwell, that the tendency of the best authorities on skin diseases is to reduce their number, and that many skin diseases which formerly had separate and distinct names are now recognised as varieties merely of eczema. The eruptions on the cheek which accompany certain forms of ophthalmic disease are certainly eczematous, and frequently precede the ocular lesions. "I am, &c., FURNEAUX JORDAN."

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 3RD, 1865.

MR. PRESCOTT HEWETT, PRESIDENT.

DR. BARLOW brought forward a case of

DISEASE OF THE TRICUSPID VALVE, WITH CIRRHOSIS OF THE LUNG.

He remarked that Dr. Wilks had pointed out the distinction between this condition of lung and chronic inflammation. In this case the pathological condition of the lung had been predicated during life. The patient was a navvy, aged thirty-eight, who had led a dissolute life, and had a few months before been in St. Thomas's Hospital on account of hæmoptysis, after which he had never been restored to complete health. On his admission into Guy's he had cough and purulent expectoration, with systolic bruit not audible up the aorta. The face displayed much venous congestion, with patches of skin exhibiting a sort of fibroid change. There was anasarca and slight albuminuria. The diagnosis was made from the long continuance of hæmoptysis in a man in tolerably good general health, with no symptoms of phthisis, and with probable disease of the right side of the heart, combined with the peculiar state of the skin of the face. On post-mortem examination the left side of the heart was found healthy. On the auricular surface of the tricuspid valve were some vegetations and thickening of the curtains of the valve. The state of the lung quite coincided with that usually described as cirrhosis. There was no cirrhosis of the liver.

Dr. WILKS raised the question as to the existence, and as to the recognizability of bruit from disease of the tricuspid valve. Dr. Addison had taught that disease of this valve produced no bruit.

Dr. QUAIN stated that he entertained no doubt of the possibility of recognising disease of this valve. He referred to three cases in which this had been done in his experience.

Mr. J. HUTCHINSON exhibited a specimen of

DISEASE OF THE BRAIN, OF A TUBERCULOUS NATURE, CONNECTED WITH LOSS OF SPEECH.

The patient, a male adult, had suffered amputation for caries of the tarsus, and was afterwards admitted into hospital with disease of the sacro-iliac symphysis. Suddenly one day he was observed to be unable or unwilling to speak, which was at first referred to deception. There was no loss of intellect or power; but soon afterwards he lost control over the sphincters, and other brain symptoms came on. The power of speech was never recovered (except that he sometimes enunciated the single syllable "can't") during the three weeks he lived. After death a small portion of crude tubercle was found near the end of the descending horn of the lateral ventricle, and some thickening of the arachnoid. There were evident symptoms of inflammation extending up the fissure of Sylvius, with softening around it. Mr. Hutchinson observed that it was this part of the brain which had lately been asserted by M. Broca and Dr. H. Jackson to be connected with the function of language.

Dr. J. POLLOCK showed a case of

HYDATID CAVITY OF THE LIVER OPENING INTO THE LUNG.

The interest of the case lay in the fact that the disease appeared to be in process of cure till this was interrupted by circumstances which might be called accidental. The patient, a lad aged nineteen, was admitted into King's College Hospital for cough and pain on the right side. He had had an attack of jaundice in St. Bartholomew's Hospital four months previously. On admission, the right side of the abdomen was found enlarged, and this enlargement was afterwards much increased. He frequently expectorated very large quantities of sputa, and these were often examined for the hooklets of echinococci, but without success. After this copious expectoration the bulging disappeared, and he was soon afterwards discharged convalescent, but was re-admitted with shivering, severe pain in the abdomen, and collapse. He died shortly after this. On a post-mortem examination, recent peritonitis was found. The liver and right lung were intimately adherent. There was tubercle in the bronchial glands, but in no other part of the lung. There was a large cavity filled with hydatids of irregular shape, communicating between the liver and lung. The cavity in the liver was very small compared to that in the lung. Between the liver and gall-bladder was an abscess about the size of an orange, which had burst into the peritoneum; and this had been the proximate cause of death, and had interrupted what had apparently been the commencement of the spontaneous cure of the disease. The gall-bladder was very small, and closely contracted on several gall-stones. A small part of the liver in the neighbourhood was in a state of incipient suppuration. No claws of echinococci were found in any part.

Mr. B. SQUIRE introduced a case of Favus.

At a previous meeting of the Society, Dr. M. MACKENZIE showed a specimen of

GROWTHS FROM THE VOCAL CORDS.

Both patients were children, and the growths had been removed by the aid of the laryngoscope. Dr. Mackenzie dwelt on the fact that these were the youngest patients on whom the operation had been performed by the aid of the laryngoscope.

Mr. MASON, who had seen the cases during life, added his testimony to the improvement in voice which had followed the operation.

Dr. W. PLAYFAIR showed a child the subject of

SPINA BIFIDA,

in whom the disease was undergoing a process of spontaneous cure. The tumour was in the lumbo-sacral region, and a year ago was as large as the child's head, very red and tense, and apparently on the point of bursting. Nothing was done beyond supporting the tumour, and it has now nearly disappeared. The skin is tense and wrinkled, and the disease nearly cured. The pouch had never burst. The child, when shown to the Society, appeared lively and healthy. The skin over the tumour was thrown into convolutions nearly resembling those of the cerebrum.

Dr. CAYLEY exhibited a specimen of

DISEASED SUPRA-RENAL CAPSULE

from an old woman, aged seventy-two. She died of renal dropsy, without any symptom of supra-renal disease. There was found a tumour attached to the cortical tissue of one supra-renal body, the interior being healthy. The other capsule did not show distinct signs of disease. The tumour appeared to be of a fatty nature.

Dr. GREENHOW pointed out the difference between such conditions of supra-renal capsule and those which are associated with Addison's disease.

Mr. H. SMITH showed the

DISSECTION OF AN ELBOW THREE YEARS AFTER SUCCESSFUL EXCISION.

The patient was a child, aged five, and the joint had been quite useful. Recovery was rapid. Almost all the motions of the arm were as nearly perfect as possible. The arm (which was the right) was said even to be stronger than its fellow. The preparation showed the bones united by a dense fibrous tissue, allowing a good deal of motion. The attachments of the biceps and triceps were seen.

Dr. PEACOCK exhibited a specimen of

DISEASED HEART,

in which a portion of the chordæ tendineæ of the mitral valve had been ruptured during a fit of vomiting. The patient, a

young woman, aged twenty-one, had laboured under rheumatic fever two years before. The patient was brought to the hospital in a cab in a dying state; but when placed in the cab to be brought there she was in her usual health. The motion of the cab brought on vomiting, and she rapidly passed into a dying condition, surviving about twelve hours. The pericardium was entirely adherent; the heart much hypertrophied; a portion of the chordæ tendineæ of the mitral valve seemed to have been recently torn away. Both the mitral and aortic valves were much thickened.

Mr. TEEVAN exhibited

SECTIONS OF SOME SKULLS,

showing the incorrectness of calling the inner table of the skull the "lamina vitrea." He observed that, in nearly all anatomical and surgical works, it was stated that the inner table of the skull was more brittle than the other, and hence had been named the "lamina vel tabula vitrea." The two facts which had given rise to the above supposition were—firstly, when a foreign body penetrates the skull from without, the inner table will always be found more injured than the external; and, secondly, fracture of the internal table alone, without any injury to the external, sometimes occurs from violence applied externally. He remarked, the above facts did not result from the inner table being more brittle, but depended on other causes. The reason why the inner table of the skull is found more damaged than the outer, when a bullet enters, is because the aperture of exit is always larger than the aperture of entry, when a foreign body passes completely through any part of the skull—it matters not what the direction may be. One of the specimens was a section of a skull in which both parietal bones had been perforated by the same bullet, showing an aperture of entry in the inner table of the right parietal bone of the same size and form as an aperture of entry in the external plate of the left parietal. Three other specimens were calvariæ, in which Mr. Teevan had produced fracture of the external table, without any fracture of the internal table, *by striking from within*. He then explained the causation of the above, and also why an aperture of exit in the skull is always larger than an aperture of entry.

Mr. BROOKE believed that a good deal depended on the alteration of the shape of the projectile as it goes through the skull.

Mr. B. SQUIRE showed a photograph of Chloasma or Pityriasis Versicolor.

Dr. F. ROBINSON showed a specimen of

DILATATION OF THE RIGHT AURICLE, IMPERFECT CLOSURE OF THE TRICUSPID VALVE, WITH WARTY VEGETATIONS ON THE MITRAL VALVE.

The patient, a young man, aged eighteen, was admitted for sore-throat, from which he was nearly recovered, when he died suddenly. The main disease seemed to be an imperfection of the tricuspid valve. The lungs were stuffed throughout with miliary tubercle.

Mr. WINDSOR showed two specimens of

BLACK CATARACT,

both after injury. In both the lens was black by reflected, and red by transmitted light.

These specimens, by Mr. Windsor's desire, were handed to Mr. Hulke for microscopical examination and report.

Mr. F. MASON showed a photograph of an

EXTENSIVE COLLOID CANCER OF THE PERITONEUM,

from a patient under the care of Prof. Birna, of Berne, Switzerland. The photograph well showed the extent and nature of the disease.

Mr. HOLMES showed a case of

MALFORMATION OF THE URINARY BLADDER,

which he had not had time to dissect, and which he proposed to exhibit again at the next meeting, but which he presented at this time in order to show the fresh appearance of the specimen.

Dr. HARLEY described a case of

INTERMITTENT HÆMATURIA.

The bleeding only occurred in cold weather. At times the urine contained a large quantity of blood. The patient was in good health, and attributed the first occurrence of the hæmaturia to a chill experienced two years ago. In cold weather it generally occurs about once a day. Dr. Harley had once seen a case of a similar nature before, in a medical man, which he had published. In that case the attack seemed to be dependent on malarious poisoning. The blood-colouring in both cases did not depend on the presence of blood-corpuscles, but merely on hæmato-globulin.

Reviews and Notices of Books.

A Manual of Military Surgery, for the Use of Surgeons in the Confederate States Army. By J. JULIAN CHISOLM, M.D., Professor of Surgery in the Medical College of South Carolina, Surgeon in the Confederate States Army, &c. Third Edition. Columbia: Evans and Cogswell. 1864.

(SECOND NOTICE.)

THE hygienic section of this manual was reviewed in our former notice. Passing by a chapter of instructions on the administration of the regimental and general hospitals, which are more of local than of general interest, we come to one on the means of transporting the sick and wounded of the Confederate armies. These, according to Dr. Chisolm's description, are defective in number and bad in quality. The stretcher in common use, of which a drawing is given, is a framed litter, bulky, heavy, and "therefore a cause of complaint with the ambulance corps, whose duty it is to bear them." The following remark of the author does not give a very favourable idea of the state of discipline of this corps:—

"Our waggon transportation having been always deficient, with no room for litters in the hospital waggons or ambulances, the litter-bearers, to relieve themselves of the weight of a litter, *accidentally* break the woodwork against a rock or tree, and then rip off the sacking, which they afterwards use as a litter by cutting holes in the four corners and using two poles cut by the roadside, when they are called upon to convey wounded men; others throw away the litters as soon as they are annoyed by the weight. Unless the infirmary corps are made responsible for the litters which are put in their possession, and be made to pay for any loss or injury sustained, litters will always be deficient in our army."—p. 102.

Four-wheeled, and two-wheeled spring ambulance waggons are both in use, but the former are more generally employed. The regulated numbers of these conveyances for a regiment are two four-wheeled ambulance waggons, ten two-wheeled, and four two-wheeled hospital transport carts. But this authorized number has never been received, and "often one waggon for transporting the hospital apparatus, and one four-wheeled (rarely two) ambulance waggons, complete the actual supply to regiments in the field." (p. 106.) Perhaps it has been the defective quality of the ambulance conveyances which has led Dr. Chisolm to express so strong an opinion as he does on the great injury inflicted upon the wounded men by the act of transportation.

"Wounds which had been doing well prior to the move, take on at once an unhealthy appearance: some slough, erysipelas or mortification shows itself in others, while all feel more or less its malignant, injurious influence, even with the best transports, and under the most favourable circumstances."

This appears to be quite contrary to the experience derived from the war in Italy in 1859, where railways and other modes of carriage for removing the sick and wounded, similar to those described by Dr. Chisolm, were used extensively and over long distances, on account of the very limited hospital accommodation near the places where the principal battles were fought. The statements of the surgeons of the Austrian, as well as of the allied French and Sardinian, armies engaged in that campaign, lead to the inference that the sick and wounded were not only uninjured, but were absolutely benefited, by transportation; and this notwithstanding that the transportation was often attended by difficulties, an unavoidable amount of neglect, and laxity of discipline. The removal from the depressing influences of the hospitals near the fields of action, and the exchange of the confined air of crowded wards for the pure external atmosphere, more than counterbalanced the disadvantages just mentioned.

In describing the medical organization in the Confederate service, Dr. Chisolm reviews the medical organization in the English, French, and Prussian armies, and states that the most thorough medical organization in Europe belongs to the Prussian service. The medical staff in the Confederate service he describes to be altogether inefficient, yet at one place (p. 114), when speaking of the ambulance corps, an allusion is made to physicians and medical students being enlisted and serving in the ranks as combatants.

"The ambulance corps is composed of two men from each company of a hundred men, selected for bravery, strength, endurance, and good character. When suitable in other respects physicians or students of medicine found in the ranks are selected.....The men selected from each regiment are in charge of a sergeant, who is frequently a medical man—the conscript law not exempting physicians under thirty-five years of age from military service, and patriotism having induced many of much more extended practice to take the field."

Surely, if the wounded are necessarily neglected in any encounter which deserves the name of a battle, as Dr. Chisolm states, owing to the deficient medical staff, patriotism would be as fully shown, and humanity a great amount more, by the physicians leaving the fighting and serving in the hospital ranks.

The camp duties, and the duties of surgeons and assistant-surgeons, on the eve of battle, as well as during and after engagements, are concisely and well described; but we pass by these and turn to the section on field surgery proper. To this part of the work seven chapters, or 290 pages, are devoted. When we enumerate the list of contents of these chapters, it will be seen how necessarily compressed the information given in them must be. In the first of this series, the general characters, and general treatment of wounds, including primary and secondary hæmorrhage, are described. The next chapter treats of erysipelas, hospital gangrene, pyæmia, tetanus, and hectic. Wounds of the head, face, chest, abdomen, and extremities, form the subjects of the five following chapters. Two short chapters on frost-bite and malingering are added. The work concludes with twenty-six plates, with descriptions annexed, explanatory of the mode of performing amputations, resections, ligation of arteries, and all the ordinary surgical operations required in military practice. We observe that the greater number of these illustrations are copied from the well-known French work on Operative Surgery and Surgical Anatomy by Bernard and Huette, but we do not see the transcript acknowledged.

We can only glance very briefly at some of Dr. Chisolm's remarks in these chapters. When discussing the subject of secondary hæmorrhage, we notice that the author, in order to enforce the rule of ligaturing both ends of the bleeding vessel at the point wounded, refers to a case of gunshot wound of the neck, with removal of the epiglottis, followed by ligature of both common carotid arteries within six days for secondary hæmorrhage, a report of which was sent to us from Richmond, and which was noticed at some length in our columns. (See THE LANCET, vol. i. 1864, p. 91.) Prof. Longmore was then induced to remark, "Could no attempt have been made to secure the bleeding vessel at the wound itself with a chance of success?" and we now observe that Dr. Chisolm draws the conclusion that such would have been the proper course to pursue:—

"An autopsy revealed the fact that the left hyoid artery was the injured one; and the inference is that a ligature to the artery at the seat of injury might have given a much more successful result, and obviated two very serious operations."—p. 207.

In order to illustrate the fact that a patient after a gunshot wound is not safe from the dangers of secondary hæmorrhage until the parts implicated are cicatrized and a cure effected, a case is referred to in which arterial hæmorrhage destroyed life three hundred and twenty-eight days after the receipt of the wound. It occurred after a gunshot fracture of the femur in the upper third, and the hæmorrhage was caused by ulceration of the femoral artery from a detached sequestrum. The blood escaped through fistulous openings, which were still open and discharging at the time the fatal accident took place.

As might be anticipated from the incessant fatigues, deficient rations, and other depressing influences to which the Confederate troops have been from time to time subjected, as well as from the necessity of massing large numbers of wounded together in temporary and often ill-suited buildings, the Confederate hospitals have not been free from the scourges of hospital gangrene, pyæmia, and erysipelas. For the treatment of hospital gangrene Dr. Chisolm strongly advocates the thorough application of strong nitric acid above every other remedy. He was familiar with hospital gangrene in an epidemic form before the war in Secessia called it forth in his own country, having witnessed an epidemic of it at Milan, during 1859, amongst a number of Austrian wounded after the battle of Solferino. The experience in hospital gangrene was at one time very extensive in the Confederate hospitals.

"After the five bloody battles around Richmond in the summer of 1862, our wounded suffered fearfully from hospital gangrene in the hospitals of Richmond. Previous privations and hardships had broken down the *physique* of the army. Our soldiers had not yet become veterans inured to want, but were, on the contrary, much enfeebled by camp diseases and very short rations. Wounds from the Richmond battle-fields took on a sloughing condition at an early period, and amidst the destruction of tissue which followed more or less rapidly arteries were frequently opened, and fatal cases of secondary hæmorrhage were numerous."—p. 240.

Pyæmia has never appeared as an epidemic, but in the cases in which it occurred has proved fatal almost without exception. Tetanus, though comparatively common amongst the negro population of the Confederate States, has not prevailed to any unusual extent in the military hospitals. The atmospheric changes, which have been regarded by Larrey and other European army surgeons as so productive of tetanus amongst wounded soldiers who have been subjected to great exertion during a hot day and are left on the field exposed to cold and damp at night, do not appear to have exerted any such influence amongst the Confederate wounded.

"In the thickets which cover the face of the country, and in which battles often rage, some of those who fall escape observation of the men in search of them, and remain two or three days exposed to the elements. Such wounded we have not found more liable to tetanus than those immediately cared for."—p. 257.

We regret that space will not allow us to refer to the remarks on wounds in special regions, for they contain much matter of interest. We cannot, however, forbear quoting two tables: one showing the results of resections of joints for gunshot wounds; the other, the results of joint-wounds treated without resection or amputation, up to so recent a date as February of the year 1864. The tables are the following:—

Consolidated Table of Resections, collated from records in the Surgeon-General's Office, from June 1st, 1862, to Feb. 1st, 1864. (Prepared by Surg. H. Baer, P.A.C.S.)

—	Shoulder.	Elbow.	Wrist.	Hip.	Knee.	Total.
Primary.						
Successful	28	22	2	...	...	52
Unsuccessful...	13	3	...	...	2	18
Secondary.						
Successful	20	23	1	1	1	46
Unsuccessful...	7	6	...	1	1	15
Useful joints...	2	7	...	...	...	9
Total	70	61	3	2	4	140

Consolidated Table of Injuries of Joints treated without Amputation, made up from records in the Surgeon-General's Office from June 1st, 1862, to Feb. 1st, 1864. (Prepared by Surg. H. Baer.)

		Shoulder.	Elbow.	Wrist.	Hip.	Knee.	Ankle.
Cases of gunshot injury		17	55	28	8	103	29
Recoveries		11	50	26	...	50	23
Anchylosis		3	22	7	...	21	1
Serviceable limb		...	4	1	...	2	...
Deaths		6	5	2	8	53	6
Per-centage of mortality		35	11	7	100	51	20
Average period of death ...	Days.	19	39	35	60	40	27
Greatest	Days.	39	59	35	119	163	44
Least	Days.	9	6	35	18	15	16
Average period of recovery	Days.	132	101	95	...	166	71
Greatest	Days.	264	270	240	...	285	110
Least	Days.	32	28	45	...	96	43

We are particularly struck with the number of recoveries shown in this latter table of recoveries without amputation in gunshot wounds of the knee-joint. So remarkable a contrast does this number form with the experience of European campaigns as regards the results of these injuries, that we should have concluded some error had crept into the table, had not the author remarked in the text, "In knee-joint injuries, which, when not operated upon, have heretofore been considered as always fatal, we can show nearly fifty per cent. of cures." We believe that not a single instance of the cavity of the articulation of the knee being beyond doubt opened by gunshot and the bones injured, and scarcely any without fracture of bone, occurred during the Crimean campaign, either in the English or French armies, with recovery without amputation. The published returns of the Crimean war showed that seven men and one officer survived after gunshot wounds of the knee-joint, to be invalided; but the diagnosis in several of these was certainly not beyond doubt. European experience of the almost inevitable fatal consequences, in field practice, of persevering in attempts to save limbs after penetrating gunshot wounds of the knee-joint, has led the most eminent military surgeons in France and Germany, as well as in England, to advise amputation or resection in these injuries under the circumstances of warfare. When we see, therefore, fifty per cent. of recoveries in this table, we naturally ask—Is the diagnosis in the returns from which the table was compiled reliable? We know that the general tumefaction and frequent inflammation of the joint which quickly follow the injury from a projectile passing through the tissues outside the synovial capsule often render the diagnosis exceedingly difficult. The table shows that out of the fifty recoveries, two recovered with serviceable limbs, and twenty-one with anchylosis, but does not indicate the condition of the remainder. "Quiet, rest, immobility of the injured joint, cold-water dressing (by irrigation preferred), and opium, comprise the elements of successful treatment."

At the end of the book is inserted a printed paper, entitled "A Method of Rapidly Healing Gunshot Wounds," which appears to have been written subsequently to the issue from the press of the book itself. The method here suggested—for it is only put forth as a suggestion as regards its general application, the practical efficacy of which the surgeons in the field are requested to ascertain—is in some respects perfectly novel, and, if it prove successful, will revolutionize the treatment and many of the consequences of gunshot wounds. That the track left by a bullet which has passed through a fleshy part is a contused and lacerated wound only to be cured by removal of sloughs, suppurative discharges, and the process of granulation, is generally regarded as an axiom in surgery. There was formerly an idea that a gunshot wound might be converted into a simple incised wound by dividing the sides of the opening and canal made by the projectile; but since John Hunter showed that this was only an aggravation, and could not possibly change the characters, of the original injury, no English surgeon has followed the practice which such ideas induced. The new proposal is to convert gunshot into subcutaneous wounds. Here is the process by which this conversion is to be effected:—

"Immediately after the injury has been received, when all foreign bodies have been removed, including fragments of bone, and when hæmorrhage has been checked, but long before any reaction has been established, make two elliptical incisions, extending only through the thickness of the skin, and enclosing the wound with its immediate surrounding of crushed tissues. Dissect up this elliptical flap of skin, and two clean incisions are substituted for the ragged wound. If these incisions are carefully brought together by sutures, and the limb or trunk be supported by a roll of bandage, they will rapidly unite by the first intention, converting the track, however long it may be, into a subcutaneous wound, which will heal rapidly, without suppuration, by a process known as the remodelling process, which is well exemplified in the subcutaneous division of tendons."

If it be objected that an opening is necessary as a way of escape for the sloughs which we ordinarily see thrown off from gunshot wounds, we are answered:—"If the air be excluded, such injured tissues will disappear by absorption, and the track heal up rapidly, without any outward manifestation;" just as "where we are called upon to crush or tear up small tumours subcutaneously, suppuration and sloughing never ensue." Of such a treatment of gunshot wounds we cannot of course speak by experience, but we confess our anticipations of such results as cures "effected in from forty-eight to seventy-two hours" by no means coincide with those of the author.

In conclusion, we cannot refrain from repeating, however, that this manual contains in a small bulk a great amount of information which must have been invaluable to the surgeons of the Confederate armies; and that, beyond doubt, the gratitude of numbers of Dr. Chisolm's countrymen is due to him for lives and limbs saved by the timely instruction it has afforded.

THE NATURAL SCIENCES TRIPOS, CAMBRIDGE.

To the Editor of THE LANCET.

SIR,—If your correspondent "Justitia" is a High Wrangler, he does not seem to have profited by the logical training which he claims for that degree. You stated, what may be proved very clearly by written quotations, that many of the questions at the late Natural Sciences Tripos examination were taken from text-books, and involved no knowledge of principles, but mere cramming of the schoolboy order. From these you justly inferred that the standard of the Tripos was necessarily low, and hinted with equal justice that, so far as could be judged from their questions, the examiners were incompetent. What does "Justitia" reply? He says "these examiners themselves took high degrees in this Tripos: such a degree is a sufficient guarantee of their attainments, and, therefore, their questions are necessarily good." I need scarcely point out that "Justitia" has assumed one of the chief points at issue, viz., that distinction in the Natural Sciences Tripos does guarantee competency, and from this supposed competency he tries to disprove what is evident, viz., that the questions are bad.

I may remark that at the time when special credit-marks were awarded in that Tripos, no one could go in for the examination who had not already taken honours, either in mathematics or classics. When we find men who have taken high degrees in mathematics getting First Class in Natural Sciences ten or eleven months afterwards, with special credit-marks in no less than five subjects, what is the inference? Is it to be supposed that the intellect even of a High Wrangler can master science at or about the rate of one subject every two months? And yet this is what "Justitia" would have us believe.

I am, Sir, your obedient servant,

Cambridge, Jan. 14th, 1865. COMMON SENSE.

THE LANCET.

LONDON: SATURDAY, JANUARY 21, 1865.

IT is to be hoped that, immediately after the meeting of Parliament, some member will move for a copy of the evidence taken before Mr. MARTIN, Inspector of Charities, with regard to the condition and management of Bethlehem Hospital. The question of the present state of this great charity is far too important, and the public interests at stake are much too serious, for the valuable information that must have been elicited to be allowed to sleep undisturbed in official pigeon-holes. Meanwhile we have to deal for the present with the suggestions of Mr. MARTIN to the Governors, founded upon that evidence.

The first recommendation which he makes for the improvement of the management of the charity is, that the separate revenues for the incurables, which amount to some £7300 a year, should be amalgamated with the general revenues of the hospital. This appears to be in every regard a most desirable step. It is difficult to see what good can flow from keeping them separate, as at present; while it is easy to perceive that, apart from a needless complication of accounts, much inconvenience may ensue. When this amalgamation is made, the total income of the hospital stands at a little more than £22,244. On the 1st January, 1863, there were, exclusive of the criminals who are paid for by Government, 201 patients in the hospital, and on the 1st January, 1864, 212 patients; so that with its princely revenues Bethlehem now only maintains a little over 200 patients, who, by means of an exclusive system of rules, have been cautiously picked. This might well seem incredible. A work so utterly disproportionate to such large means is probably presented by few other charities in the kingdom; and how it can be tolerated by a body of governors who certainly can have no interest, and, as we may suppose, no pleasure, in frustrating the great objects of the institution, is quite inexplicable. If it is through ignorance of the true state of things, we may sincerely hope that the recent investigations have effectually dissipated that ignorance; if through careless indolence, then we would appeal to the governors to arouse themselves to effect a reform which otherwise Parliament must ere long do for them. The especial and pressing want of the day is admitted on all sides to be the increase of asylum accommodation for those poorer members of the middle classes in whose families an attack of insanity often puts a direct stop to the means of livelihood, and always produces most painful, when it does not result in ruinous, consequences. And yet, while it is specially provided in the rules of Bethlehem that, in order to secure accommodation for people of this class, no patients will be received who are proper objects for the county asylum, the present system practically excludes them, in order that, with an income of more than £22,000, there may be maintained about 200 carefully selected cases. As they cannot always expend so vast a sum on so small a number of patients, the governors are compelled now and then even to invest money; in 1862 they paid for the purchase of stock £4961 13*s.* 10*d.*; and in 1863, for the purchase of land, £1660 14*s.* 9*d.* What good or justifiable object can be served by such a course, when there actually exists the most urgent need of increased asylum accommodation for the middle class? We think, with the Earl of SHAFTESBURY, "that the public have a right to ask from the governors of Bethlehem Hospital the full benefit of the magnificent revenue in their possession."

The second recommendation of Mr. MARTIN is, that a branch establishment be provided in the country for the temporary reception of such patients as may be benefited by the change. If a branch establishment were provided in town for the temporary reception of patients, while the hospital itself were removed into the country, that course would better fulfil the demands of science and humanity. Herein Mr. MARTIN scarcely seems to have recognised the true nature of the question at issue. It is not a question of giving a few selected cases a pleasant change by a run into the country, but it is a question of certain essential requisites for the proper medical treatment of insanity. Suitable employment in farm and garden, and sufficient space for out-door exercise, where the unfortunate patients may not be objects of gaping curiosity and vulgar ridicule to the idle, the curious, and the impertinent—these are not to be regarded as mere gratifications, but they are the essential elements of treatment in an hospital for the insane. Whether such means exist or do not exist, constitutes, in such case, the difference between an hospital and a house of detention. If, however, Bethlehem remain where it is, we can hardly then admit that a small branch establishment for the temporary reception of a few patients will be an economical or advisable proceeding, or that it will at all adequately fulfil the great mission which this wealthy hospital might so well accomplish. For if recent acute and curable cases are to be sent to the branch house, such, in fact, as may be benefited there, then there must certainly be a resident medical officer and a matron, with a proper staff of subordinate officials; and the expense of such necessary arrangements would be out of all proportion to the work done. Rather let the governors at once build another hospital in the country—they might well afford funds for such purpose,—and, by receiving at a moderate payment patients who are too poor for a private asylum, let them establish a true middle-class asylum, and thus supply the great want of the day.

The third suggestion of the Inspector, that the rules be so altered as to allow a wider admission of patients, will command unqualified approval. We trust that the governors, adopting the suggestion in its fullest meaning and carrying it out to its fullest extent, will no longer permit a public hospital, supported by public funds, to present to the world the strange spectacle of an establishment for the insane rejecting by express rule a case of insanity simply because it requires more than ordinary attention. Surely an hospital for the insane never was founded for people who can take care of themselves and who give no trouble. *Dogberry* instructed the watch that, if they met a thief, they should suspect him by virtue of their office to be no true man, and thereupon, not apprehend him, but let him steal himself away. The authorities of Bethlehem, according to their present rules, seem to think that if a lunatic is brought for admission, they should, by virtue of their office, suspect him to be no sane man, and thereupon, not admit him, but let him go elsewhere, and presently thank GOD that they are rid of a troublesome person.

The last suggestion of the Inspector, which most nearly concerns the medical profession, is, that a limited number of young medical men, who have completed their other medical studies and obtained their diplomas, be received into the hospital, under suitable regulations as to residence, duties, and allowances. The recommendation is, as far as it goes, excellent; unfortunately, it does not go nearly far enough. The residence of three or four young medical men in Bethlehem in the year, most useful as it would unquestionably be, will by no means adequately meet the large demand for clinical instruction in insanity, which is becoming more and more urgent. That can only be done satisfactorily by a duly authorized course of lectures, to which medical students shall be admitted, and a system of clinical instruction under competent direction, such as the present rules distinctly provide for. There is no valid reason why Bethlehem Hospital should not be, under proper regulations, a clinical school for the study of insanity, just as a general hospital is for the clinical study of medicine. In Paris, in Vienna, in Edinburgh, in Berlin, the systematic and clinical teaching of psychology is pursued; in London only, of the great European capitals, is it entirely ignored. It is in the power of the governors of Bethlehem, by enforcing their rules, to wipe out this grievous reproach.

We should be loth to think that the present agitation will be allowed to pass away without such reforms being effected as will make this richly-endowed hospital answer the noble purposes of its foundation; we prefer to hope that the governors, aroused to a knowledge of its present inefficiency, will exert themselves to bring about a radical change, and that the movement now visible on the face of the stagnant waters may be the hopeful presage of better things.

IN these days of social science and popular enlightenment it is pretty generally admitted that everybody has the ready means of poisoning himself if he chooses without having recourse to the druggist's shop. He has only to breathe over and over again his own expired air until he be asphyxiated, or that which has been continuously inhaled and exhaled by other persons, and thus stand a fair chance of dying from typhus fever. It matters not whether it be the "black hole of Calcutta," or the crowded steerage of an emigrant vessel, or the close cellar-dwellings of a half-fed Irish colony in Liverpool or Glasgow; only agglomerate a lot of human beings in an unventilated place, and as sure as possible within a certain period some of them will be poisoned by the exhalations from their own bodies. Nor is this the rule with human beings only. Animals are affected in much the same manner. If horses be placed in overcrowded stables, they will be attacked by glanders; dogs in too closely packed kennels die from distemper; whilst sheep in densely filled cattle vessels will perish in numbers, though the voyage be but short from one country to the other. It is often said that the air upon the mountain top and the atmosphere of an hospital are identically the same. To the mere inorganic chemist such may be true as respects what he regards as only "atmospheric air." But to the physiologist and the physician it is a grand mistake. They know the living body to be a test for some things which the reagents of the pure chemist are unable to demonstrate. One of oxygen and two of nitrogen compose an atmosphere far simpler in its composition than the hygeist has to deal with. True it is he cannot do without the $14_2\,8_1$, but then he is forced to take them with several additions. And what are the chief of these, or rather what are those which are more noxious to the animal body? The effete organic matters—i. e., azotized substances in a state of putrefactive decomposition, or undergoing some peculiar fermentation-like process as yet imperfectly understood. Look at the windows of a well-filled omnibus, of a crowded church, of a party drawing-room this cold weather; give a glance at the painted walls of our places of amusement at this festive season. What do we behold? The glass and the walls running down with moisture. Whence is most of this obtained? From human exhalation! But in summer the air must be free from it? Not at all; it exists there just the same; and though the windows and walls may not show its presence, you may condense it by ice if you will. Everywhere and always, where animals breathe, there is this addition to the atmosphere they live in. Now collect this moisture from the air, the walls, and windows, and evaporate it. What is left behind? A residue impregnated with albuminous matters, extremely liable to become putrid, smelling like animal perspiration, and, if heated, giving out the odour of burnt flesh! Or let it remain at rest for a short time, and then examine it with the microscope. What do we see? Crowds of infusoria gradually developed! There is animal matter, then, which is animal poison, in the insensible as well as the sensible transpiration given off by the frame. Some pure river-sand was calcined by FARADAY, and then heated along with the hydrate of potassa. It did not yield the slightest trace of ammonia. He now passed his hand slowly over the sand, which, when treated in a like manner, afforded traces of ammonia. Once more condense and concentrate the foul fluid we are supposed to have collected. Introduce a small quantity into the vein of a dog. The animal will probably soon die, after presenting many of the phenomena of typhus fever.

That breathing and re-breathing already re-breathed air—for thus we may express it—is highly noxious, nay often fatal, to those who do so, is, as we have stated, frankly admitted by almost the least intelligent. They are pretty well aware, too, of the general kind of disease which so characteristically follows the worst examples—viz., fever of a low nervous kind (i.e., the professional typhus). But pathologists are still at issue whether *ochlesis*—the term first employed by Dr. J. GREGORY to signify overcrowding—is capable in itself of directly producing the typhus poison germ, or only of so lowering the tone of bodily energy and vital resistance as to readily permit the system to become impressed or acted upon by it, existing as it does around, ready and prepared. On this question we do not intend to enter. The settlement of it one way or the other equally illustrates our position, which is, that the only way of preventing people from being the means of poisoning themselves and others is to keep their bodies constantly surrounded by pure air; that if this be not done, then, in the worst examples of the evil, low fevers will follow, and such acute specific maladies as scarlatina, morbilli, and variola will be excited into epidemic forms, marked by symptoms which are usually known as of "malignant character." What "ochlesis" *cannot* do we are uncertain; but of this we are sure, that it *can* cause the atmosphere to become charged with animal particles given off from the bodies of such of the congregated people as are affected with fevers, influenza, diarrhœa, &c., which act most injuriously upon those who had been

previously well. There is not an ill-ventilated church, chapel, theatre, ball-room, or quiet evening *conversazione*, which may not contain amongst the assembly some as yet unsafe convalescents from these and analogous diseases. Such places are hence made boxes full of plague. When such affections are at all prevalent or of epidemic character, most places of public resort and amusement should be carefully avoided. People who go to them are like badly built houses without party-walls: bring in the spark, apply the fire, and the whole row is in a blaze directly.

It is a popular belief, however, and a very sad one too, that persons only want fresh air in summer. Then windows are opened, though as much for the sake of coolness, perhaps, as for anything else. But it is really in the winter and the colder weather that the effects of ill-ventilation are prominently seen. Both rich and poor strive all they can, in their houses and rooms, to keep themselves warm. The former fill their apartments with friends and visitors; the latter crowd and huddle together in a single room to increase the artificial by animal heat. Doors and windows are kept rigorously closed, and the rooms are often little short of being but reeking, sickening, headache-giving ovens. Add to this the want of proper nourishment amongst the poor during inclement seasons, and thus is prepared the richest soil for the propagation, if not for the actual production, of the germs of fever. The colder the weather and the more inclement the season, the greater becomes the necessity for heads of families and superintending persons to keep a sharp look-out that the ventilation be good. In warmer weather, the higher temperature compels individuals to look to a certain extent after their own welfare in this respect; but at such times as the present the demand for warmth and so-called comfort overrides everything. This is the case not with civilized people only, but holds good with the uncivilized of the North. From Captain HALL'S work,* recently published, we make the following extract:—

"Smith and I walked on for about the eighth of a mile to the lakelet where the water was obtained, and put the Esquimaux fairly to work. We then returned, and called at one of the tents. Smith, being first, intended to pass in; but had no sooner lifted the folding door (pendent skins) and introduced his head, than he rapidly withdrew again, exclaiming 'Whew! By thunder, I'm not going in there; it's crowded, and smells horrible. How it looms up!' He then turned away; but I, having more inducements to bear the infliction, determined to pass in."

Bad as the tents and iglooks of the Esquimaux may be, our own rooms are often not much better. Mr. STEWART CLARK, who in 1863 read a paper before the British Association for the Advancement of Science, on the Baneful Effects of Foul Air, has lately published some very useful "Practical Observations,"† in the preface to which he observes—

"The out-door labourer, who works from morning till night in the open air, endures for years a great amount of toil, often on poor fare, and indifferently housed at night; yet all the while is strong and in robust health. The hardy Scotch Highlander is able to walk forty, fifty, or even sixty miles a day amongst his native hills, on no better fare than a dish of porridge and a piece of oatmeal cake; and this chiefly in consequence of the pure air in which the greater part of his life has been passed. So also the Indian palaquin-bearer, who lives much in the open air, and has never more than two meals a day (and often not more than one), consisting of sheep-attas and a little glue, will endure the toil of carrying a heavy load twenty-five, thirty, or even thirty-five miles a day continuously without over-fatigue, and seldom ailing. But the difference in the same classes of men is remarkable when they are congregated in ill-ventilated workshops and barracks, although they live at the same time on the best food that can be procured. The artizan soon loses his healthy, robust appearance, becomes sickly, and dies at an early age; and the soldier, who in times of peace lives to all appearance in comfortable quarters and is fed sumptuously, is easily fatigued, hardly able to endure a march of ten or fifteen miles, is often sickly, and falls a ready prey to cholera, or any other passing epidemic."

Hence in all regions of the globe, under all circumstances, and at all times, our best exertions should be used to render the air of the apartments and localities inhabited by us and by those of whom we have responsible charge, as pure as possible.

WE regret to perceive from the letters of our Dublin correspondent, as well as from the editorial observations of the Dublin *Medical Press*, that a considerable difference of opinion prevails amongst our brethren of the profession in that city as to the course that journal has adopted on a recent painful occasion. It is at all times of the first importance that a perfect confidence and good understanding exist between a professional journal and those whose interests it is presumed to more immediately represent. The medical body has a right to expect in every matter involving its reputation or the personal character of one of its members, that at least a complete fairness in reporting, if not a generous spirit in commenting, be evinced. Less than this no impartial man should be satisfied with. They, however, take a narrow and one-sided view of the duties of a medical journal who believe that the interests of medicine or the vindication of medical men are those deserving of its first attention. Above and before every other consideration is the protection of the public, best accomplished by an honest desire without favour or affection in every matter, medical or personal, to influence public or professional opinion solely by a calm and thoroughly truthful investigation, as well as by a dispassionate record or analysis, of any matter upon which the medical journalist assumes the responsibility of comment. Under the most ordinary circumstances this is a serious undertaking, even when the facts stand without contradiction and their significance is admitted. This, however, was not the case in the instance to which we refer. On the one side was arraigned a professional and personal reputation for years before the public, and previously unimpeached; on the other, a character was for the first time submitted to scrutiny, and self-proclaimed to be entirely unworthy of credit. To this latter conclusion, we unhesitatingly affirm, the cross-examination of Miss TRAVERS irresistibly led. A witness who trifled with her oath, and blew hot and cold as it suited her cunning and revengeful purpose, is most assuredly not the person whose assertion is to be permitted to effect the social discomfiture of a high-minded and honourable man.

Our Dublin correspondent complains, on the part of the Irish medical profession, that the Dublin *Medical Press*, in its report

* Life with the Esquimaux. By Captain Charles Francis Hall. London: S. Low. 1864.

† Practical Observations on the Hygiene of the Army in India, including Remarks on the Ventilation and Conservancy of Indian Prisons, &c. By Stewart Clark, M.R.C.S. Eng., Inspector-General of Prisons, North-West Provinces, India. London, 1864.

of this case, gave in full the direct evidence of the plaintiff, which affirmed "*I did*," and omitted altogether the searching cross-examination which wrung from her the confession "*I did not*," thereby virtually terminating her claim to veracity. The editor of the *Medical Press* considered that cross-examination would have proved "a burden to his pages," exculpating as it did a gentleman of the highest professional standing from a foul and filthy charge, and retorts, we regret to say, with ill-advised personalities on our correspondent for directing attention to this grave and most reprehensible omission. The Editor of the *Medical Press* believes he has adequately and fairly discharged his duty by giving counsel's speech for the defence. We venture to affirm that he stands alone in that opinion. It is fair to presume that the *Medical Press* constitutes a standard volume in many public and private libraries, and when the ephemeral newspaper reports of the day are forgotten, it will stand as a book of reference even upon this matter. On such assumption, how great is the wrong, how grievous is the injustice which has been inflicted on Sir WILLIAM WILDE. The Irish profession have a right to complain of this. We complain of it. Sir WILLIAM WILDE has written his name in the history of European medicine, and no foul calumny should be permitted to blot the page. Human suffering is universal, and he who successfully labours for its removal or relief is entitled alike to universal gratitude and protection. We are at a loss to understand the course our contemporary has pursued. If speeches of counsel were sufficient to set forth the case, why publish any part of the evidence? Having gone into evidence, why suppress that which declared the true character of the witness, proclaimed the importance she attached to her oath, and set forth her reasons for a line of conduct for which unfortunately examples are not wanting in the records of our pages, where similar accusations have been brought against worthy and honourable men?

Men write according to the dictates of their separate judgments; and judgments differ. When, however, an opinion is written implicating a professional reputation and a personal fair fame, the least that ought to be conceded to those most interested in so important a public judgment is a full, perfect, and impartial detail of all the facts constituting the premisses on which such an opinion rests. With these a good cause has little to fear, either from individual shortcomings or personal impressions; without them, the character of any man is at the mercy of those who may unfortunately, as in the present case, miscalculate the value of the most important evidence, and accordingly give it no place in their consideration.

Medical Annotations.

"*Ne quid nimis.*"

NATURAL SCIENCES TRIPOS, CAMBRIDGE.

WE have no intention of opening our columns to a correspondence between the friends of the Examiners of the Cambridge Natural Sciences Tripos, on the one hand, and their denouncers on the other. We have drawn attention to what we consider an error in the conduct of the late examination, and expressed our opinion, based upon a consideration of the examination papers, and a comparison between them and those papers upon similar subjects set by other examining boards. It is immaterial *who* the examiners are; the question of their places in any class-list, is equally irrelevant. Their work, in a particular direction and for a special purpose, is the only matter with which we have to do. This direction and this purpose are intimately blended with the interests of science everywhere, and in an equal degree with those of the medical profession. The Universities of Oxford and Cambridge have long granted degrees in Medicine, and afforded facilities for a certain amount of special training in this branch of knowledge. The value of these degrees has ever been recognised as of the highest, and chiefly on account of the *general* training which has preceded the more *special*. Latterly, the universities, with a liberal appreciation of the spirit of the times, have sought to reform the method of "proceeding in Medicine." The claims of the natural sciences to rank with other older studies, as affording means for educating and training the mental powers, have been recognised. A course of reading has been arranged, an examination instituted—both differing considerably from the old regulations concerning the natural sciences,—and a degree in Arts, with honours, granted as a reward for passing the examination. Further, so far at least as Cambridge is concerned, candidates who satisfy the examiners in certain branches of natural science, more especially bearing upon the science of Medicine, are exempted, should they subsequently proceed to a medical degree, from further examination in those subjects. It is fairly presumed that a degree in Medicine still implies a training previous to the special study, not inferior to that implied before the examinations in the natural sciences became the avenue to a degree in Arts.

We say nothing now in reference to the special study of Medicine in the universities, though this has greatly improved. It is, we repeat, the training during the three years' residence at Oxford or Cambridge, altogether separate from the special reading subsequently entered upon, and which is supposed, very properly, to fit a man for special study in any direction he may choose, which constitutes the chief value to the physician or surgeon of an education at these universities. For many obvious reasons, those intending to graduate in Medicine will avail themselves of the natural sciences as their trainers during the university course. From the greatly extended facilities afforded, and in no small degree also from the publicity and support which it has been our part to afford, the number of medical students has largely increased at Oxford and Cambridge; hence the medical profession becomes directly interested in the progress of the natural sciences in these universities. It will look to them for some of the leaders in its practice, for men of position and learning who shall advance and extend that knowledge in which humanity at large has so great a stake. And if, departing from rules and methods of teaching which have made them so justly renowned as the centres of all that is learned in other departments of knowledge, they should encourage a want of accuracy and a shallowness in their Natural Science schools, they will simply fall behind and have to give up the ground, which they can maintain if they wish, to other institutions of more modern date who do recognise the value of a scientific education, and impress the world with the notion that natural science in their hands is no child's play, but can be and is effectually used to train philosophers in a philosophic way.

At Oxford the scheme of the Natural Science examinations leaves little or nothing to be desired; and, judging from the examination papers we have seen, the scheme is efficiently carried out by able and *working* scientific men. The sister University, however, with which we are now more especially concerned, has undoubtedly betrayed a symptom of weakness in her estimate of what an examination for honours in Natural Science ought to be. We freely grant that it is a matter of the greatest difficulty to frame questions in subjects such as Chemistry or Comparative Anatomy which shall at once admit of an accurate answer and bring out the intellectual power of

the candidate. But the mathematical genius which so pre-eminently belongs to Cambridge is expected to attain this two-fold end. Surely a climax was reached in the late examination. There was something almost grotesque in Alma Mater's eccentricity. The grey old buildings around St. Mary's might grow greyer at the sight they were called upon to witness in 1864: a number of men in the venerable Senate House seriously engaged in cutting up pieces of raw mutton chop and placing them under the microscope, in order to satisfy the examiners that they knew what muscular fibre was! By all means make the examination as practical as desirable, but exclude practical jokes. We do not, however, forget that the Cambridge Natural Sciences Tripos, as at present constituted, is quite a recent institution. Necessarily time must elapse before the examinations become as perfect in their way as those of the Mathematical or Classical Triposes. At present the University is compelled to appoint its examiners according to peculiar rules and under many restrictions. The number of men possessing the requisite qualifications is extremely limited. It is in this respect at a great disadvantage compared with other institutions; for instance, the School of Mines. The examiners, with certain exceptions, have been frequently men who took up the old Tripos as a supplement to the degree examination in Mathematics; amateurs in science. It is true some of them sufficiently distinguished themselves in this examination; but it is known that marks of distinction under the old *régime* were given for *relative* proficiency in each subject. If the high standard now implied in the regulations of the Natural Sciences Syndicate is to be maintained, care must be exercised that in no way should the conduct of the examinations leave a loop-hole for sarcasm, or the questions cause even the non-scientific to smile. It is because the University of Cambridge has latterly exerted herself to attain a high position in the teaching and encouragement of the natural sciences, and through them of medical science—because of the unparalleled opportunity for promoting the progress of these sciences which she possesses—that those who take an interest in her welfare, and look to her to advance in the van of scientific progress, regard with jealousy any indications of mediocrity in a course which she herself has marked out with characteristic excellence and care.

TREATMENT OF THE SICK POOR.

THE inquiry into the circumstances attending the death of Timothy Daly has been one of great importance, and will be followed, we may hope, by useful results on a great scale. Such an inquiry throws in a light upon the domestic economy of the union hospital, which brings with it hope for the sick pauper, and gladdens the heart of the parish doctor. Poor Daly suffered from no uncommon disease; and it is evident that he had fully average care, kindness, nourishment, medicine, and skilled attendance. Indeed he had more; for there were those belonging to him who were willing to pay the inmates for little special attentions to him. The poor fellow himself bore testimony to the kindness of the master of the workhouse—not always a very tender and beloved official. The priest who visited Daly testified that he found him always clean and well kept. In many ways it is evident that Daly had advantages which are not always within the reach of others of the sick poor who enter the infirmaries of workhouses. His was a case, however, in which all the best appliances of the sick-room were demanded, although they might all have failed to save him. Paid nurses—women skilled in their duty and trained to tender and careful handling of the sick; air and water cushions; abundance of wine, brandy, and bark; beef-tea and beef-jelly,—the most costly medicines, and the best food,—all these are needed for such a case: where a sharp fever, wearing pain, immobility, and exhaustion tend to produce those lamentable ulcers which are the reproach of nursing—sores born of the bed which is intended to comfort and protect the sufferer. Spite of all these appliances bed-sores have happened: they do happen, in private practice as in the wards of the best-nursed hospitals. The examples which Dr. Goodfellow gave are apposite, because they are selected from cases of identical character: they may be multiplied not only by reference to the records of hospitals, but by the histories of the cases of princes and millionaires. Hence it was no peculiar hardship that the poor man should have suffered with bed-sores. Nor did the searching, unfriendly examination and cross-examination elicit anything which tended to fix neglect upon the medical officer. On the contrary, he was shown to have done his duty well and faithfully. The endeavour to suggest that the visiting surgeon should at each visit require personal inspection of the bed-sores of a patient suffering from acute articular rheumatism, and to whom every movement is painful, arose out of thoughtlessness, and ended in the inevitable failure of a suggestion so unreasonable and improper. The type of the disease was low, and the patient early fell into a debilitated and typhoid condition: how far a previous injury to the spine may have increased the tendency to sloughing it is not necessary to discuss. There was no case against the surgeon; but there was a strong case against our union infirmary system. The typical faults of that system were laid bare: to the mind of the guardians of unions and of the Poor-law officials they are no faults at all; to our mind, and, as we believe, in the eyes of the public, they are grievous. Here we see the surgeon pitifully underpaid, and bound to find costly medicines out of his salary; wine stinted; no air-cushions in the house; no water-bed; no paid nurses.

Let us hope that those who read this case, and those who report on it, will seize the true moral of it. By all means, let an inquest be held where there is any reason to suppose that a patient who has died in a workhouse has been neglected or ill-treated, or has succumbed under any but the most usual circumstances. There are many who go further. They wish that an inquest should be held in every case of death in a workhouse—not as an imputation upon the officials, but as a check upon the system; just as an inquest is held in every case of death in a gaol. This is a proposition which has the support of many thoughtful men, including experienced and able coroners. Its objects and their utility are obvious; but it would entail the holding of so many inquests that we are doubtful whether it be practicable. Certain it is, however, that the pinching system of unions—the constant warfare of guardians against their medical officers, of which the object is to cut down the expenses, and to diminish all the comforts which sickness is everywhere else held to require—is one in which the latter need support and sympathy. We trust that this inquiry will raise up a public feeling which will yield both, and this solely in the interests of the suffering poor.

THE EPIDEMIC AT BERMUDA.

THE mail-packet *Africa*, from Boston and Halifax, arrived at Liverpool on Jan. 16th, bringing news from Bermuda to Dec. 24th. By the middle of November, the epidemic which has committed such ravages there seemed to have exhausted itself. Unusually warm weather for the season of the year returned about Nov. 20th, and continued till Dec. 12th, when a severe gale visited the islands, commencing at S.W. and settling in N.E. quarter, which was followed by great improvement of the public health. While this short summer lasted there was a recurrence of fever cases at St. George's, and in the vicinity of the Government house at Mount Langton, near the town of Hamilton, in the centre of the island group. A soldier, servant of the acting governor, Lieut.-Col. Humley, R.E., died of black-vomit on the 25th of November, this being the last military case recorded. Milder cases occurred at the same time in members of Colonel Humley's family, all terminating benignly. At St. George's, several fatal cases

presented themselves in seamen belonging to the blockade-running steamers. On Ireland Island, the last case amongst the residents dated November 17th.

After the return from Halifax, on the 7th of December, of the marines and seamen belonging to the dockyard, it was discovered that the causes of fever still retained a dormant vitality sufficient to act on the newly-arrived men, amongst whom several cases of fever of mild form appeared, resembling more closely the mild endemic type of fever than the true yellow type. The last case of this mild form dated Dec. 12th, after which the dockyard population were believed to be free from disease.

It cannot, however, be asserted with equal confidence that the yellow fever was extinct at St. George's, as fatal cases had happened there in the week ending Dec. 24th. Under these circumstances, the troops of the Bermuda garrison were still detained at Halifax, as a board of military officers at Bermuda had pronounced it unadvisable to remove them from that place before the middle of January. The Admiral had left the frigate *Galatea* at Halifax to bring the troops to Bermuda, when it should be considered safe to do so. We have since learnt, however, that the *Galatea* left Halifax on the 6th inst., having on board the troops of the Bermuda garrison; it should have arrived on the 10th or 11th.

The loss of life amongst the governmental portion of the community has been approximately as follows: troops in military quarters—7 officers, 170 men; at the naval hospital—1 officer, 67 men (mostly soldiers), 6 medical officers; total, 251. This mortality must have been greatly increased but for the prompt assistance of Admiral Sir James Hope, in sending supplies of every kind from Halifax, and in detaching ships of his squadron to bring away the troops of the garrison and the dockyard people before the climax of the epidemic was attained.

MEDICAL ETHICS AND THE WITNESS-BOX.

ACTIONS against medical practitioners for what is called malapraxis are of two kinds. The first class comprises those in which gross and culpable ignorance has been displayed, or where neglect of such a character has been established which, if not a crime, bears closely upon it. In such cases as these, the interests of the public and the honour of the profession justify a medical witness in giving evidence adverse to the defendant in an action at law. Fortunately these instances are of very rare occurrence. There is, however, another class of cases of a totally different character. These comprise instances in which, from unforeseen circumstances, from carelessness on the part of the patient, defects in constitution, and other causes, untoward results have ensued. Fairly, they exhibit no want of skill or of attention on the part of the medical practitioner. This is the kind of case which of late has figured so prominently in courts of law, to the injury of the profession and the scandal of the public. Trials of this kind for malapraxis would never occur if the members of the profession were true to themselves, or if a witness for the plaintiff before going into court would exercise a little discretion. The late trial at Liverpool affords a melancholy proof that grave injustice may be done to a skilful and honourable surgeon by the neglect of the ordinary rules of caution on the part of a medical witness. It is impossible to suppose that if Mr. Lund had made himself properly acquainted with the history of Mrs. Pryce's case, he would have appeared as a witness against his professional brother. The loose statements that are made by ignorant persons ought not to weigh as a feather in the balance in forming a scientific opinion in a surgical case; and it may safely be asserted that a medical practitioner who forms his judgment upon such statements exhibits a want of prudence which is to be strongly condemned. Mr. Lund, in his letter in THE LANCET of last week, acknowledges his error, and if the effect of his evidence were to cease with the present case, his apology might be received *sub silentio*, and further discussion avoided. His conduct, however, is but an example, and not a solitary one, of the kind of evidence which we reprehend. Without such testimony actions like that of Pryce and wife *v.* Bowen could not possibly be instituted. It is time that the profession were more fully alive to this fact, and when a case occurs means should be taken to mark its disapprobation of such conduct. We publish the following correspondence, which has taken place between the physicians and surgeons of the Liverpool Royal Infirmary and the Medical Committee of the Manchester Royal Infirmary:—

Dear Sir,—Complying with the instructions of my colleagues, I beg to transmit to you the accompanying document.

I am, dear Sir, your faithful servant,

J. VOSE.

To the Chairman of the Medical Board of the Manchester Royal Infirmary.

Liverpool Royal Infirmary, Dec. 24th, 1864.

At a meeting of the Honorary Physicians and Surgeons of the Liverpool Royal Infirmary, held on Saturday, the 24th of December, 1864,

It was resolved,—That the attention of the Honorary Medical Officers of the Manchester Royal Infirmary be called to the cause "Pryce *v.* Bowen," tried at the Liverpool Assizes, before Mr. Justice Blackburn, on Thursday last, the 22nd inst. From a perusal of the evidence given upon that occasion, it will be observed that a gentleman of education and of experience, who holds the office of surgeon to one of the hospitals in this district, had an action brought against him for alleged unskilful treatment of a broken arm. The plaintiff's solicitors, after vainly endeavouring to procure medical evidence against the defendant from the profession in Liverpool, turned their attention elsewhere, and succeeded in obtaining the services of Mr. Lund, who declared himself at the trial to be "a surgeon of the Manchester Royal Infirmary," and who gave evidence for the plaintiff; which evidence, the medical officers of the Liverpool Royal Infirmary submit, was not to be expected from a member of the profession who holds the appointment of surgeon to the Manchester Royal Infirmary.

Signed, on behalf of the meeting,

JAMES VOSE, M.D.,
Fellow of the Royal College of Physicians,
Chairman.

P.S.—A copy of the *Liverpool Mercury*, containing an account of the trial, is herewith enclosed.

To the Chairman of the Medical Board of the Manchester Royal Infirmary.

Manchester Royal Infirmary and Dispensary, Jan. 5th, 1865.

Sir,—In reply to your communication of the 24th ult. to the Medical Committee of this hospital, I am directed to inform you that Mr. Lund is not a surgeon to the Manchester Royal Infirmary, but Mr. Lund is one of the Dispensary surgeons; and inasmuch as Mr. Lund is not a member of the Medical Committee, this board must decline entering into the consideration of Mr. Lund's conduct in his capacity as a private surgeon.

I have the honour to be, Sir, yours obediently,

GEO. REED, M.D.,
Resident Medical Officer.

To the Chairman of the Medical Committee, Liverpool Royal Infirmary.

Nothing could be more dignified and less open to criticism than the letter of the Liverpool practitioners. It contrasts favourably with the reply to it. The medical officers of the Manchester Royal Infirmary have avoided a reference to the real question at issue: the document transmitted by them is disingenuous and exhibits a lamentable want of that *esprit de corps* which should have animated them in such a case. Mr. Lund was not acting in his "capacity as a private surgeon" when he appeared in the witness-box of a public court, fortified by his statement that he was one of the surgeons of the Manchester Royal Infirmary. He was acting as a *representative* of that institution, and assumed to some extent to be a supporter of the public against a member of his own calling. Better things were to be expected from an important town like Manchester, in which there is a Medico-Ethical Association, which in times gone by has done service to the profession. We have no desire to press unduly upon Mr. Lund after the reclamation which he has made, but we believe that with the exception of the Committee

of the Manchester Royal Infirmary there are not ten surgeons in the kingdom who would regard with so much indifference the conduct which has been pursued by an officer connected with that institution.

THE CHARITY OF THE TURF.

IT is now nearly five years since Mr. Joseph Bond first publicly proposed that a per-centage of the stakes won at horse-races should be appropriated to charitable purposes. If his suggestion had been at once acceded to, not a single human being would have been the worse, but an enormous mass of suffering and misery would have been relieved, and the lives of many poor men saved. Taking the statistics of London hospitals, and the figures which represent known winnings on the turf, and remembering that our unendowed hospitals have often to refuse admission to cases because there are no funds for their relief, the result is a mere matter of calculation. In the last three years the stakes won at races have amounted to more than a million of money. Who is the better for it? If there were ten original opponents to Mr. Bond's scheme, and any one of these should happen to endure personal suffering, he may "lay the flattering unction to his soul" that upwards of ten thousand poor folks have been condemned to suffer far more misery than he endures because of his want of Christian charity.

The suggestion was at first ignored, or treated with that chilling indifference which so often nips great projects in the bud. But the good intent had a hard-headed man to urge it on. Strong in his conviction of right, Mr. Bond has worked on with indomitable energy and perseverance, having everything to lose and nothing to gain, *quoad* himself, but fighting to obtain for the poor and sick such mitigation of their suffering as a contribution of at least fifteen thousand pounds a year dispensed to hospitals would afford. He has fought the fight, almost single-handed, for nearly five years; and if we consider the many examples of good work accomplished only by steady hammering and untiring zeal, there is reason to hope that he may yet attain success; that, as in many a hard-fought field, victory will fall to "perseverance with his batter'd shield."

The only official objection that is allowed to appear in opposition to the plan, is rather an evasion than an argument. It is said that the authorities have no power to dictate to the winners of stakes at races how they shall dispose of their gains; that they may refuse to relinquish their grasp of monies which they had no claim to before the race was run. This is rather an insulting insinuation against the owners, supposed to be gentlemen—at least by the Jockey Club. But, in order to back this argument by illustration, it is said that the Committee has no more power over the private possessions of individuals than the committee of any London club has over the property of its members. This is true so far as it goes. Just as a winner has a right to exact every farthing of the stake, so a member of any club has property in the bones of his entlet or the pastry of his *vol-au-vent*, and may therefore protest against an order of committee providing that the broken victuals, including crumbs from his particular table, be given to the poor.

But, in truth, the whole argument is founded on a fallacy. The Committee of the Jockey Club know perfectly well that they could carry this suggestion into effect if they chose; and could make this deduction for the benefit of the hospitals just as much a matter of course as the deductions which are already made without objection on the part of the winners. But it is suggested that it is the doing this on compulsion which is considered to be so very unbearable. It is really remarkable that some of these persistent protestors have never yet objected to the ten commandments as putting matters in too compulsory a manner.

The French are so lost to self-respect that they set aside from the amount paid for their amusements a sum which is expended in helping the sick and suffering. They are so benighted as to take pride in this taxation of their pleasures. The Committee of the Jockey Club in London have given their opinion on Mr. Bond's proposition, and may consider themselves responsible for all the human suffering that would have been relieved under the guidance of that spirit which pervades French institutions.

NEUTRALIZATION OF WOUNDED IN TIME OF WAR.

THE Government of Great Britain has announced to the Federal Government of Switzerland, through the British Minister at Berne, its adhesion to the treaty of Geneva of August, 1864, for the neutralization of the wounded, as well as of the field hospitals, in time of war. Eleven countries had officially ratified the treaty at the time of the adhesion of England being received. In addition, Greece, Turkey, the United States, Mexico, and the Brazils, had announced their intention of accepting the offer of joining the treaty as soon as the necessary arrangements could be made.

By this convention medical officers, and others while in attendance on the sick, as well as the sick and wounded themselves, are neutralized. Field hospitals, ambulances, and other stores are exempted from capture; hospital stores at the base of operations are not so exempt beyond those needed for the actual use of the sick and wounded in hospital. The grand principle held in view is the neutralization and protection of the wounded, of those who are charged with the care of them, and of that which is essential to their sustenance. This principle is consonant with humanity; and it has been practically shown that its observance does not interfere with belligerent operations.

THE HUNTERIAN MUSEUM.

WHATEVER may have been the shortcomings of the Council of the Royal College of Surgeons, neglect of the Museum cannot be enumerated amongst them. The Annual Report of the Conservator of the Hunterian Collection has just been presented to the Council. From this interesting document it appears that during the past year a very important addition has been made to the Pathological Series—viz., 194 specimens with 448 microscopic slides, illustrating the results of injuries and diseases of the eye, prepared by Dr. Bader when engaged as one of the assistants in the Museum. Although the preparations were completed more than two years ago, it was useless to place them in the Museum until a descriptive catalogue had been made, which forms a second supplementary volume to the Catalogue of the Pathological Series.

The Histological Collection, formed principally by the late Professor Quekett, has been rearranged by Dr. Murie, formerly an assistant in the Museum—a gentleman to whom the lovers of microscopy are much indebted for the valuable services he rendered Professor Quekett during his lifetime, and for the ability, zeal, and unflagging industry with which he has examined, reproduced, and in a manner edited Quekett's great book of Nature. Dr. Murie returned from the Nile Expedition in time to accept the liberal offer of the Council to take the work in hand, and has executed his task in a most satisfactory manner.

The long-continued and now serious illness of Mr. Taylor has retarded the analysis of the large collection of Calculi added to the Museum since the publication of his former catalogues of this interesting and valuable portion of the Museum.

In the collection of Crania of different races of mankind great additions have also been made during the past year, chiefly through donations. Mr. Flower, the author of the report, makes a pressing appeal to those who have it in their power to aid him in bringing together in one grand collection, in an accessible place such as is afforded by this Museum, the materials for thoroughly investigating the natural history of

our species, at all events in its anatomical and physiological aspects. The Museum at present contains 433 crania, nearly all well authenticated.

A plan especially deserving of mention, and of imitation at other museums, has been devised—namely, an exposition of unarticulated bones for comparison; and one or two cases have been fitted up expressly to show the principal modification of each individual element of the skeleton throughout the vertebrate series by placing the homologous bones of a number of different animals in juxtaposition. For convenience of comparison, the specimens are all to be placed in corresponding positions, mounted on separate stands, with a label attached to each, bearing the name of the bone and of the animal to which it belongs. It is believed that when this series shall have been carried out on a sufficiently extensive scale, it will afford facilities to the student of comparative osteology never before equalled. This ingenious scheme will necessarily entail a great expense on the Council.

The valuable preparations of Dr. Bell Pettigrew, and Dr. Hübrich of Munich, have already been alluded to in our pages.

BOURNEMOUTH.

A WARFARE of no little interest to the medical profession and the general public is at the present time being carried on at Bournemouth, a watering-place on the coast of Hampshire, which, owing to its numerous and peculiar advantages in point of climate, soil, and situation, has in a comparatively brief space of time acquired a deserved celebrity. The rapid increase of the place has compelled its inhabitants to take into serious consideration the question of drainage and sewerage. As a matter of course there are two parties. The one is anxious to involve itself in as small an outlay as possible, and desires to confine its operations to a minimum of improvement; the other, taking a more comprehensive view of its duties to the present as well as to future generations, seeks to enforce the necessity of adopting a scheme which shall realize the teachings of modern sanitary science in its widest scope, and permanently establish the hygienic character of the town, so far as it depends upon mechanical and engineering contrivances. We need scarcely say that the leaders of the latter party are two gentlemen, well known in our profession, Drs. Burslem and Falls, and that they are fighting an uphill battle against the shortsighted policy of their opponents.

The numerous and glaring instances of the neglect of sanitary requirements in frequented watering-places have of late made it a matter of great difficulty for the physician to select a place of temporary residence for his patients who require change of air for the restoration of their health. We all have had cases in which the search for health in well-known and fashionable localities on our coast has been rendered futile by the impurities generated and allowed to accumulate in and about the dwellings. We all have had reasons for deploring the *crassa ignorantia* of local boards, who failed to see that their pecuniary interests were bound up with a liberal fulfilment of all those obligations which the well-defined conclusions of modern science have forced upon all.

Bournemouth is at present in the enviable position of being, so far as hygienic appliances go, almost a *tabula rasa*. Its inhabitants have a clear field and a no less clear duty before them: a clear field for such operations as may give to their town a pre-eminence amongst its peers; a clear duty to themselves, no less than to their contemporaries and to their successors, to adopt the wisest plans that can be suggested.

Drs. Burslem and Falls, supported, as we are happy to see them, by a few of the most wealthy and intelligent residents, are urging most strenuously upon their fellow-townsmen the adoption of the most comprehensive measures, and are advocating, in the first instance, an appeal from the local surveyor to men of the highest authority in the department of sanitary engineering. They have fortified themselves by the opinions of various men who are acquainted with sanitary science in general, and the requirements of their admirable locality in particular. Letters from Mr. Edwin Chadwick, Sir James Clark, Dr. West, Dr. Sieveking, and Dr. Ferguson, supporting the general principles advocated by those gentlemen and their friends, were laid before the local board, and have been published in the local papers. The writers all agree on the importance of adopting a system which shall be permanent, and which may be capable of extension with the growing wants of the place.

Mr. Chadwick dwells forcibly upon the economy of a system of self-cleansing tubular sewers; and, in illustration of his argument, brings forward Worthing, where, he says, the execution of proper drainage works has reduced the death-rate from 27 to 14 and 15 per 1000, and has increased the value of house property more than 25 per cent. "Anyone," he adds, "may now go there and take any house with the assurance that he does not go into a fever nest—an assurance he cannot have with houses connected with cesspools, or with sewers and drains of deposit, which are only extended cesspools."

Dr. Sieveking, again, strongly urges attention to the general question of a far-sighted policy in matters of sanitary legislation; and, after remarking that the inhabitants of Bournemouth will never have such another opportunity of rendering it the most healthy as well as one of the most delightful marine residences, calls upon them not to let the opportunity slip of giving an example which will redound to their credit as men of large and comprehensive views, and that will not fail to bear ample pecuniary interest. He then summarizes his suggestions under the following heads:—

"1. On no account allow any discharge of sewage matter within a mile east or west of the pier.

"2. On no account allow any contamination of the Bourne (the rivulet which now runs through the town); but use it solely for the beautification of the grounds through which it flows.

"3. On no account allow the whole of the sewage to pass away by a single main.

"4. On no account adopt any plan that will materially diminish the number of fir-trees which now form so characteristic a feature of Bournemouth, and, I believe, influence by their balsamic odour the hygienic features of the place.

"I will only add," Dr. Sieveking says, "with reference to the first point, that I sincerely hope it will not be found necessary to throw any of the sewage into the sea; but if unavoidable, at all events keep the beach clear and the air and water uncontaminated in the vicinity of what will, before many years, become one of the finest and, if you choose, one of the most salubrious towns of our beautiful country."

Whether or not these particular suggestions may be the best we do not now inquire, but we can have no hesitation in affirming the general proposition to be irrefutable: that the wisest economy will be that which most liberally provides for the purification of the entire locality, and secures such a system as may be capable of ready extension, without the constant tinkering and disappointment which a niggardly provision is certain to entail.

According to the latest news which we have received, the party of foresight and progress have gained the upper hand, and the ratepayers have shown their good sense in appointing, by a unanimous vote, a committee consisting of Mr. Cannan, Mr. Christy, Dr. Burslem, Dr. Falls, Mr. A. Smith, and Colonel Moody; all, we believe, good men and true. We may have occasion to advert again to this matter; in the mean time we heartily wish the committee a successful issue to their labours, and would beseech them not to relax in their praiseworthy efforts to place Bournemouth in the foremost rank of health-giving marine residences.

THE PHYSICAL CONDITION OF MILLINERS AND DRESSMAKERS.*

IN the course of the past year two official inquiries were carried out respecting the physical condition of milliners, dressmakers, and needlewomen generally. One inquiry was conducted by the Children's Employment Commission, and extended to the whole kingdom; the other by the Medical Department of the Privy Council, and was confined to the metropolis. A third inquiry, of which the chief results have been included in the Second Report of the Children's Employment Commission and the last Report of the Medical Officer of the Privy Council, and which has been published in detail by a contemporary,† was carried out by Mr. Radcliffe, the honorary secretary of the Epidemiological Society. The object of the latter inquiry was to ascertain the actual condition of health amongst the employed, while following their occupation and holding themselves to be well, in the higher-class houses of business at the West-end of London.

These different investigations have brought together a mass of valuable information respecting a large and important class of the employed, than whom none has more frequently and more forcibly appealed to the sympathies of the Legislature and the public. The number of milliners and dressmakers in the United Kingdom, according to the Census of 1861, amounts to 370,218. Large as this number is, it constitutes less than half the population earning subsistence by the needle included in the investigations of the Children's Employment Commission. One-fourth of the young women employed in millinery and dressmaking in England and Wales are under twenty years of age; and more than half those employed in London are from fifteen to twenty-five years of age. The injury to health to which this class is peculiarly exposed assumes a much more serious social aspect when the youthfulness of the workers is considered. The deteriorated health too generally induced in early life, there is good reason to believe, is frequently permanent, and in the event of marriage is apt to exercise a most unfavourable effect upon progeny.

When the first Children's Employment Commission made its investigations into the state of milliners and dressmakers in London, in 1842, the sub-commissioner reported that the protracted labour to which they were subjected was "quite unparalleled in the history of manufacturing processes. I have looked (he adds) over a considerable portion of the Report of the Factories Commission, and there is nothing in the accounts of the worst-conducted factories to be compared with the facts elicited in the present inquiry." Again, he says, "The evidence of all parties establishes the fact that there is no class of persons in this country living by their labour whose happiness, health, and lives are so unscrupulously sacrificed as those of the young dressmakers." Although the recent inquiries have shown that since these opinions were expressed a marked improvement has taken place in the condition of milliners and dressmakers, this amendment is far from having been equal to that which has taken place in other branches of manufacture; and in comparison with these the same language might with justice be used still. The Children's Employment Commissioners state that "this business is still too much distinguished from other occupations by excessive hours of work;" that "the condition of the workrooms is on the whole most objectionable;" that the sleeping accommodation is far from being satisfactory; that defective ventilation and overcrowding of the workrooms are almost universal; that the mischief from these sources is much increased by the gas; and that the arrangement for meals and food is too often objectionable.

Of the evil effects of these conditions on the health of the employed the evidence leaves no doubt. Dr. Wm. Ord, who conducted the inquiry for the Medical Department of the Privy Council, says:—

"In the case of the in-door dressmakers, the system appears to be rapidly worn out by the long-continued monotonous work, carried on in close rooms, and for many hours, in an atmosphere deteriorated by gas. In the case of the day-workers, the hours, though shorter, appear to be still too long for the limited amount of nourishment accessible. Here again, of course, we find many exceptions in which good constitutions triumph over the most adverse circumstances; but medical observation shows that though dressmakers can work on year after year with only imperceptible ebbing of vitality, and with no evidence of actual disease, yet that they are readily prostrated by slight illness, and that they recover with great difficulty and slowness; their constitution under constant pressure has lost its elasticity."

Mr. W. H. Lord, one of the Assistant Commissioners on the Employment of Children, in his elaborate report, writes:—

"But it is not the weakly ones alone that fall victims to the conditions, whether of late hours or of unhealthy apartments, under which this business exists. The poor girl at Ryde 'who was quite observed there for her good looks and health,' dying of consumption after a year in London; the two who had been very well in Plymouth, utterly broken down by one season at the West-end; the painful iteration throughout this evidence, 'my health has suffered; my constitution has been very much impaired; very many suffer; I was myself very strong;' leave no room for doubt. 'They are continually ailing; their appetite fails with long sitting in close rooms; coughs and faceaches are very general, and headaches too; they often faint at their work; it is so usual that no particular notice is taken.' 'I do assure you it was quite sad,' says a day-worker, speaking of the residents where she worked last season, 'to look at their pale faces, and see them walk quite crippled with swelled feet by standing so long at the trains. *The servants were far healthier than the young ladies in that house.*' 'No doubt,' remarks a very superior first hand in one of the most fashionable houses in the West-end, 'needlework does affect you in the course of years. It is not so much that dressmakers get really ill, but they become gradually, almost imperceptibly, weaker. *A little thing soon knocks them down.*' In that last sentence the whole effect of their work upon their health is briefly epitomized."

Dr. Flintoff, the medical officer to the Dressmakers' Aid Association, states that in his experience dyspepsia and phthisis are much more common amongst dressmakers than amongst domestic servants.

But Mr. Radcliffe's inquiry, the Commissioners say, affords "the best illustration" of the deterioration of health amongst milliners and dressmakers. He sought to determine the physical condition of the *healthiest* workers. To this end he examined twenty persons, *holding themselves to be well*, who were employed in the higher class of private houses of business at the West-end. In only one instance, he states, were the general assertions of "good health," or being "quite well," and of "suffering little from the work," apparently borne out by a more detailed examination. "I say apparently borne out," he writes, "as the person referred to was seen but once; and twice or thrice when, during a first interview, all derangement has been denied, subsequent opportunities of seeing the individuals have shown that there was marked and persistent disorder of health due to employment." Of the rest, Mr. Radcliffe says:—

"In the remaining instances the health was more or less disordered. The examined were not ill, yet they were not well. Their physical powers were manifestly below par. Their state is, perhaps, most accurately described as one of permanent fatigue, more or less marked. They were subject to fleeting muscular pains, particularly in the back, trunk, and lower limbs. Almost all suffered, to a greater or less extent, from back-ache or side-ache. There was a constant feeling of weariness, which was imperfectly relieved by sleep. A common expression was, 'I get up in the morning as tired as when I go to bed.' Their work deprived them both of the spirit and power for any other occupation. There was considerable nervous excitability, significant of over-taxed mental as well as

* Second Report of the Children's Employment Commission.
Sixth Report of the Medical Officer of the Privy Council.
West-end Milliners. By J. N. Radcliffe.
† Social Science Review. Sept. 1864.

physical powers. Their spirits were apt to run to extremes, now being unduly depressed, now unduly excited; 'a trifle upset and worried' them. They were liable to nervous headaches and tic-doloreux. As more direct results of the confinement and want of exercise, they had feeble although excitable pulses. They were liable to palpitation of the heart. Their extremities, particularly the feet, were commonly cold, summer and winter, from defective circulation. They were martyrs to chilblains. Their feet and legs often swelled towards night, and ached miserably. Their respiration was imperfect, the chest expanding insufficiently, and the lungs lacking due inflation. Their digestion was also imperfect. They suffered often from discomfort after eating, or from actual pain; or they were liable to a sense of craving and sinking. Their appetite was variable, and often squeamish. The bowels were sluggish. Extreme costiveness was the rule. The uterine functions were generally disturbed, the menstruation being irregular, abnormal in quantity, or painful. The examined suffered, in short, from the usual consequences of defective innervation and protracted fatigue, the necessary results of a monotonous and sedentary occupation pushed to excess. The effects described were found amongst the examined in every grade of development. At the best they were never entirely absent. They had gradually grown from the occupation, and the susceptibility to them seemed to increase the longer the employed had been engaged in it."

Of the maladies to which dressmakers are most liable, Dr. Ord enumerates—1st. Symptoms of brain distress, referable to the constant use of the eyes, more particularly by lamplight; these consist chiefly in headache and giddiness. 2nd. Dyspepsia, attributable to the long hours of sedentary employment, the want of compensatory exercise, and the hasty taking of food. 3rd. Diseases associated with depression of vitality, such as phthisis, chlorosis, and hysteria. 4th. Affections of vision, which are comparatively rare amongst the well-fed indoor hands, but are more common amongst the day-workers.

Affections of vision were amongst the most distressing of the physical evils brought to light by the inquiry of 1842. The less degree of prominence which these maladies assume in the recent inquiry is one of the most satisfactory indications of amelioration in the past twenty years.

"Of diseases therefore specially dependent upon the nature of their occupation," says Dr. Ord, "we find few amongst the dressmakers and milliners; we find nothing like the jaw-disease of the match-makers, or the mercurial tremors of the looking-glass makers, or the lung-disease of the stone-grinders; but we find, in place of such well-defined instances of cause and effect, the terrible fact that thousands of women in London are pursuing their occupation under conditions which constantly undermine their vital and physical powers, and contract, with fatal certainty and by large per-centage, their measure of years."

Foremost amongst the causes of this lamentable state of things is the excessive duration of work. This chiefly is found in houses entirely devoted to millinery and dressmaking. Twelve hours would appear to be considered as the minimum day's work. Many houses largely exceed this period, some constantly in the season; a few limit the day's work to a smaller number of hours. The evidence adduced by the investigations shows overwhelmingly that long hours are neither necessary nor profitable.

The second great source of deteriorated health is defective ventilation and overcrowding. In eight instances only of the numerous workrooms examined by Dr. Ord and Mr. Lord, did the cubic space exceed 400 feet per occupant. In the majority of instances the cubic space was less than 300 feet. The minimum space required for satisfactory ventilation is 500 cubic feet.

Mr. Lord quotes an instructive illustration of the effects of overcrowding. He writes:—

"With regard to the number of persons who can without injury to their health be safely put into one workroom of a given size, I received some very useful information from Mr. Stuart, of the firm of Stuart, Taylor, and Co., wholesale milliners, Old Change. That gentleman stated that they had area enough for nearly 400 persons in their three workrooms; but had found that when so many as 130 were in one, several fainted. They had therefore limited the number to 100, there being one or two more occasionally, and thereby raised the proportion of cubic feet per head from 203 to 264. Since that regulation had been in force no fainting had occurred."

A third great source of injury is the pollution of the atmosphere, and excessive heat induced by, as well as the glare of, the gas.

Finally, the character of the food, want of a definite period of rest in which to take the meals, and general discomfort, exercise an unfavourable influence on the employed.

Mr. Lord, Dr. Ord, and Mr. J. E. White, Assistant Commissioner, state that the food, as a rule, is good and sufficient in quantity; but the general absence of a fixed amount of time in which to take it is commented on. The Commissioners, however, direct attention to a statement of Mr. Radcliffe, in reference to the injurious influences exerted upon health by the bad and unsuitable food supplied in some establishments, and by the hurried, hasty meals. The want of a fixed period of relaxation at meal-times, and the habit of resuming work immediately after a meal, whether it be hurried or not, he states to be a grave evil. Mr. Radcliffe, indeed, has formed a more unfavourable opinion of the food than the two Assistant-Commissioners and Dr. Ord.

To meet the evils disclosed by the different inquiries, the Children's Employment Commissioners suggest that all workrooms and sleeping apartments should be officially subjected to medical superintendence, and placed under sanitary regulations; and that the hours of work should be limited by the Legislature. Hitherto, suggestions to set bounds to the hours of labour in millinery and dressmaking have met with little support. The Commissioners argue that the circumstances of the case are such as to justify the interference of the Legislature; and they urge the enactment of a law after the fashion of the Bleaching and Dyeing Act. They would make the hours of work from six to six, seven to seven, or eight to eight; allowing an hour and a half for meals. They successfully reply to the objections urged against legislative interference, and it is to be trusted that their recommendations will meet the approval of the Government. They further recommend that, in order to insure the introduction and observance of sanitary regulations, powers similar to those provided in the Factory Extension Act of 1864 for ventilation and cleansing would be essential. It is evident that these recommendations, together with provision for medical supervision, would meet the chief evils to be dealt with. The medical supervision would be carried out under the local authority of the district; and it is suggested that the duty would best be performed by the medical officer of health, where such a functionary existed.

Legislation would, however, leave one evil untouched; and the removal of this evil would do much to set aside the need of legislation. Mr. Lord remarks that, on the whole, the girls are inconsiderately rather than harshly treated. "I believe," he says, "that one-half the troubles of dressmakers arises from the business being commonly in the hands of unsystematic persons; from ill-managed workrooms, and ill-ordered households." Mr. Radcliffe writes to the same purpose: "The want of comfort tells most injuriously upon the employed. It intensifies the depressing influence of the occupation, and is a fruitful source of moral deterioration.....The evils of overwork and confinement would be less severely felt if the houses of business were what they ought to be—true homes for the employed. The absence of home-feeling and of actual comfort, for which employers are alone responsible, fosters largely physical indisposition, and powerfully predisposes to, if it be not a chief initial cause of, those distressing lapses from morality which, unhappily, meet the investigator the moment he penetrates beneath the surface of the dressmaker's life."

Correspondence.

"Audi alteram partem."

ON THE ELECTION OF FELLOWS AT THE COLLEGE OF PHYSICIANS.

To the Editor of THE LANCET.

SIR,—I have read with much interest your article on "the mode of electing fellows at the College of Physicians." Some change in the present mode of election is undoubtedly advisable, and I venture to propose a plan, which slightly differs from the one advocated by yourself.

Let the Council draw up a list of candidates as heretofore, but at an earlier period of the year; and let them send this list to every fellow resident in Great Britain and Ireland, with a request that each fellow should, if he think proper, erase as many of the selected names as he pleases, and replace them

by the names of legally eligible men with (as he supposes) stronger claims to the fellowship. The reason for the change should be briefly given.

Let the Council again meet and reconsider the altered lists. They will then know how far their original list agrees with the general feeling of the fellows; and they will, if I mistake not, so far modify it as to prevent the recurrence of the discreditable scene enacted by the physicians of a certain west-end hospital last election-day.

This final list of candidates should also be sent to the fellows sufficiently early to allow any country fellow time to protest against the election of any candidate, should he feel it his duty to do so. This I conceive to be an important point. A member residing in a provincial town may have a scientific reputation, and at the same time may have a very discreditable status in society. The London board of electors would be cognisant of the former, but in all probability quite ignorant of the latter; and here the provincial fellow could render essential aid.—I am, Sir, your obedient servant,

A PROVINCIAL FELLOW OF SIXTEEN YEARS' STANDING.

January, 1865.

P.S.—A well-known and distinguished Harrogate physician was proposed for the fellowship last year. Is there not an, at least, equally celebrated physician at Buxton whose name should also have been upon the list?

BARON LIEBIG'S SOUP FOR CHILDREN.

To the Editor of THE LANCET.

SIR,—I was very much pleased at seeing your remarks on Baron Liebig's Soup for Children. I had previously read his article on that subject in the *Popular Science Review*, and was particularly impressed with the value of the food, prepared as he directs, in all cases of hand-fed or bottle-fed children. By feeding them with a food in part artificially digested, a great strain will be taken off their weak stomachs, and I believe we should get a much less number of cases of eczema and other ailments arising from defective digestion and assimilation than we do at present were this food generally adopted; and we must hope that this adaptation of organic chemistry to our daily wants will be found to be not less valuable than the many important practical truths established by Baron Liebig in that branch of science.

The greatest difficulty towards obtaining this soup I found to be how or where to get the malt, but I have to-day made arrangements with the Metropolitan Farina Company, who have their factory at 9, Walmer-road, Notting-hill, to supply any of my patients with the malt-flour, mixed with (or without) the proper proportion of bicarbonate of potash. At my suggestion, the above company will shortly be prepared to supply the malt-flour in tins, that it may be better preserved, allowing chemists and others keeping it on sale a trade discount.

I am, Sir, your obedient servant,

AN ADMIRER OF LIEBIG.

Jan. 11th, 1865.

THE CASE OF PHŒBE M'ENNIS.

To the Editor of THE LANCET.

SIR,—I have read in your journal of the 14th inst. an article headed "The Case of Phœbe M'Ennis." The article concludes with an inquiry if I have anything to urge in mitigation of the sentence passed upon me by the Committee of the St. Pancras and Northern Dispensary. As the question is put to me by the Editor of THE LANCET, the acknowledged organ of the medical profession, I reply to it frankly by stating that I admit the justice of that sentence, but at the same time I desire to repudiate in the strongest manner the very serious charges of "cold-hearted seduction" and "abominable heartlessness" which you have brought against me.

The short facts of the case are these: I made the acquaintance of the girl in the streets—mine was not the first acquaintance of the kind which she had formed. She visited me at my rooms from time to time, and ultimately insisted against my will on remaining in the lower part of the house. I remonstrated with her to no purpose, as she preferred remaining where she was to returning to her own home. I had in the month of November last given to the Committee notice that my engagement with them would terminate at the expiration of two months from that date. I could not remove the girl without a disturbance, which would bring the institution into open disgrace, and as my engagement had almost terminated I allowed her to remain, in the hope that by so doing a public scandal would be avoided. When the girl attempted suicide in a fit of anger at my blaming her for intruding herself into my room in the presence of a third person, she being then in the house against my wish, I, regardless of the consequences to myself, for her own sake placed her under the protection of the law; and, in so doing, I was not actuated by any other motive than the fear of the result which might follow if she were not placed under some restraint. I did not seduce the girl. I never told her to take her departure because "*she failed any longer to be of any use or pleasure to me.*" I did not say that I should desert her because she was in the family-way, for I never knew or heard such to be the case until it was so stated in the police-court.

I have stated the facts as shortly as I can, and, if you desire it, I will give you every means in my power of testing the accuracy of my statement. I do not in this letter, out of consideration to the girl, give you her address, but you can have it on application to me, and you will then have the opportunity of learning more.

It is not for me to attempt to defend or palliate an immoral connexion, and that is why I have nothing to urge in mitigation of the sentence of the Committee; but I feel that justice to myself and to my profession requires that I should not allow to pass uncontradicted the unfounded charges of seduction and heartlessness.

I admit and express my sincere sorrow for my folly in having formed such a connexion, but I am not prepared to submit to the stigma which attaches to the charges brought against me in your article.

I am, Sir, your obedient servant,

J. S. WESLEY, M.B. Lond. Univ.

Norfolk-street, Strand, Jan. 19th, 1865.

SUBSCRIPTIONS FOR DR. BOWEN.

To the Editor of THE LANCET.

SIR,—By inserting the following names of additional subscribers to the "Bowen Fund" you will oblige,

Yours truly,

H. D. SCHOLFIELD, M.D., *Treasurer.*

Hamilton-square, Birkenhead, Jan. 17th, 1865.

Dr. Higgins	£5	0	0
J. W. Foulkes, Chemist	5	0	0
Dr. Skinner	2	2	0
Dr. Vale	1	1	0
Dr. Purdon	1	1	0
Dr. Selwood	1	1	0
Dr. Dobie	1	1	0
Dr. Fenton	1	1	0
James Rowlands	1	1	0
E. Parker	1	1	0
J. Pennington, Esq.	0	10	6
John Green, Chemist	0	10	6

EXAMINATION PAPERS: CAMBRIDGE NATURAL SCIENCES TRIPOS.

WE have been requested, on the part of the examiners, to publish the examination papers which were set in the Cambridge Natural Sciences Tripos. The questions on which we have remarked are those treating of Anatomy and Zoology, and we are only able to find room for these. Our readers will probably agree with us that they are very unfit for the examination of candidates for the highest scientific honours in these departments:—

Describe the stomach of a ruminant and the process of rumination. By what peculiarities of organisation do the camelidæ differ remarkably from other ruminants, and to what climates and soil are they best adapted? Of what do the humps principally consist?

Contrast the structure of the compound eyes of insects with that of the stemmata or simple eyes met with in the same class; and state what is known of these two forms of visual apparatus.

Trace the development of the vascular system of a chick in

ovo, from its earliest appearance to the complete establishment of the adult form of the circulatory apparatus.

Describe the nervous system in the lobster. How is this modified in the crab? Where, according to Dr. A. Farre, is the organ of hearing situated in the lobster?

Give the ordinal characteristics of the Glires or Rodentia. How does the dentition of the genus Lepus differ from the rest of its order?

Describe generally the peculiarities in birds of the vertebræ, the ribs, the sternum, and the pelvic arch. Describe the construction and mode of development of a bird's feather.

What insect furnishes shell-lac? Mention other animals of the genus which yield a commercial product. Name the order to which they belong: and state its characteristics.

What are the muscles which move the human eye, and with what nerves are they supplied? Enumerate and give a general description of the layers which compose the retina.

Describe the form and habits of the shrew-mouse. To what division of the animal kingdom is it to be referred? Name two other British quadrupeds closely allied to it.

Show that the fore-hoof of the horse is homologous with the third finger of the hand in man, by tracing the gradations of development of the anterior extremity in the mammalian series.

A fragment of a skeleton is found; the ramus of the mandible is composed of a single piece of bone, and articulated with the squamosal element of the skull;—to which class of animals did it belong? What especial characters would the occipital and basi-occipital bones, and the blood-corpuscles present?

What is the essential nature of the function of respiration? Describe the different modes whereby it is performed in the animal kingdom.

Describe concisely the anatomy of the human heart. What is the mode of action of the auriculo-ventricular valves? How does it differ from that of the semilunar valves?

Trace the metamorphosis of the echinodermata. Name the orders and families into which Van der Hoeven subdivides this class, and give the strictures of Agassiz on his arrangement of it.

Describe fully the oral apparatus of the echinus.

Name the orders of mammalia that are indigenous in Australia. Show that the principal order contains analogous representatives of those orders that are absent; and note the bearing that these observations have on the theory of the physical origin of species.

Describe the minute structure of the spleen, and mention the various functions ascribed to it by physiologists.

What are the general characters of the cephalopods? What is the structure of the suckers attached to the tentacles? For what purpose are the so-called "vela" employed by the argonaut? In what manner is locomotion effected by this animal?

Into what groups and orders are the annelida divided? Give the general characters of the tubicola. As a general rule what difference is there between the branchiæ of annelida when they are sanguiferous only, and when they receive the chylaqueous fluid?

Describe briefly the minute anatomy of the structures that usually enter into the composition of a tooth in mammalia. Name the different kinds of teeth found in that class, and the orders wherein they respectively occur.

What are the general characters of the sub-kingdom cœlenterata? What are the seven orders into which the class hydrozoa is divided, and what are the characteristics of these orders?

What peculiarity is there in the structure of the thread cells of the ctenophora? Give some account of the bathymetrical and geographical distribution of the reef-building corals.

What are "gonophores," "gonoblastidia," "pneumatocysts," "ctenocysts," "nematophores," and "nectocalyces"?

Mention the divisions under which, according to Agassiz, animals may be naturally classified; and give his definitions of these divisions.

What is the normal number of segments in insects, and what organs are attached to each segment? Describe the ovipositor either in bees or in saw-flies. In what respects is the dorsal vessel of scorpionidæ similar, and in what does it differ from that of insects?

State the reasons which have led naturalists to refer the cirripedia to the branch articulata. What was the origin of the error that the barnacle goose (Anas bernicla) is the offspring of Lepas anatifera?

What constant character enables us to distinguish readily between the skull of a batrachian and that of a true reptile? Describe the respiratory circulation in the tadpole and the changes which take place in the course of the blood as the animal is developed.

Give a general description of the structure of the common scallop, or other lamellibranchiate. By what process are the shells enlarged in length, breadth, and thickness; and how is the progressive advance of the adductor muscle effected? Compare the valves of this class with those of the pallio-branchiata.

Mention the chief characteristics of the vetebrata. What organ is be found in every member of this branch at some time of its existence?

Give a description, illustrating it by means of a diagram, of the structure of a spongilla. Which are the "inhalent" and which the "exhalent" apertures? In what two modes is the reproduction of sponges effected?

Into what sections are birds divided? Enumerate their respective orders, stating briefly their most striking characters.

To which family and order do the following belong: ostrich, plover, puffin, rock dove, woodpecker, pelican, golden eagle, black cock?

Describe the electric organs of the torpedo. How is the most energetic shock obtained from it, and in which direction does the current pass?

Prepare a microscopical specimen of muscular fibre. Sketch and describe it.

PURIFICATION OF THE PUBLIC PRESS.

To the list of newspapers which exclude quack advertisements from their columns are now to be added the *Morning Herald* and the *Standard*. The proprietors of these journals sustain, we understand, a heavy present loss; but the step so honourably taken by them will meet with such support from the public, and the medical profession in particular, that they will not eventually be losers.

Medical News.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen have recently passed the preliminary examination in Arts for the diploma of Membership:—

Archer, T. B.	Humphreys, R.	Pratt, C. W.
Bell, A. J.	Jeffreys, H. H.	Pritchard, R. H.
Bird, C. H.	Jukes, A.	Rae, W. J.
Brooks, S. B.	Lack, T. L.	Riches, R.
Burgess, F. W. R.	Laking, F. H.	Risden, A.
Burroughs, G. E. E.	Laslett, F. W.	Rope, H. J.
Carter, C. A.	Ley, J. W.	Rosser, W.
Conybeare, J. J.	Llewellin, G. J.	Rowlands, S. J.
Dayman, B.	Lovegrove, T. H.	Smith, F. A. A.
Deacon, H. P.	Lovell, F. O.	Snell, E.
Dixon, H. E.	Mann, W. H.	Staveley, W. H.
Eldred, G. A.	Mead, C.	Steele, R.
Favell, R.	More, J. H.	Stevens, C. H. S.
Gillitlie, A. A.	Newman, A. C.	Strafford, T.
Groves, A. S.	Norbury, T. W.	Thorp, B.
Gurney, T.	Owen, S. E.	Ticehurst, A. R.
Hamlin, F. W.	Parkinson, C. H. W.	Turner, H. C.
Hardman, W.	Perkins, E.	Walford, E.
Hart, E. J.	Pertwee, F.	White, F.
Hubbard, T. W.	Phibbs, R. F.	Wood, W. B.

The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 17th and 18th inst., and when eligible will be admitted to the pass examination:—

Adrien, E. W.	Hilder, N. A.	Phillips, E. E.
Anderson, William.	Hines, C. H.	Pughe, D. R.
Arnold, John.	Hogg, C. H. J.	Purcell, F. A.
Beechey, F. M. C.	Hunt, F. E.	Ridley, Herbert.
Binns, F. W.	Iliffe, Charles.	Ruttledge, E. B.
Bush, C. A.	Jefferson, John.	Shaw, H. S.
Ceely, R. W.	Johnson, T. S.	Shorter, H. G.
Cotter, A. H.	Jones, E. S.	Stafford, T. E.
Edmonds, C. G.	Keall, W. P.	Staples, H. T.
Ennals, C. T.	Kilroy, M. A.	Temple, J. A.
Evans, E. T. R.	Lawrence, John.	Thorne, James.
Fairland, E. J.	Leckie, W. J.	Twigge, T. N.
Fisher, F. R.	Lyle, H. B.	Wiles, William.
Garnsey, E. C.	Morgan, J. T.	Williams, E. E.
Gosselin, W.	Mousley, G. W.	Wilson, Alfred.
Green, W. E.	Parks, John.	Wright, W. E.
Hall, R. S.	Paull, Josiah.	Yeomanson, John.
Hewley, W. C.	Pearce, J. C.	

At this examination it is stated that no less than 17 candidates were referred back to their studies, out of the 70 who presented themselves.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on the 12th inst. :—

Clements, George, Middlesex Hospital.
Eccles, George Henry, Felix-terrace, Islington.
Miller, Reuben Zacchæus, Louth Lodge, Richmond.
Williams, John Hughes, Holyhead.

As an Assistant—

Haddock, Job, Bridge-street, Buncorn.

THE HUNTERIAN ORATION for the year at the College of Surgeons will be delivered by Mr. Partridge.

UNIVERSITY OF LONDON.—The examination of candidates for the degree of Master in Surgery in connexion with the University of London is fixed for Monday, the 6th of March.

THE REGISTRAR-GENERAL'S WEEKLY REPORTS, which have hitherto had reference to the births, deaths, and diseases of the metropolis only, will in future embrace returns from the principal cities and towns of the kingdom.

ILLNESS OF MR. KIERNAN.—We regret to state that Mr. Kiernan, a member of the Court of Examiners of the College of Surgeons, is suffering from an attack of paralysis. Dr. Burrows, his old friend and colleague at St. Bartholomew's, with Mr. Skey and Mr. Hodgson, are in attendance upon him.

A NEW HOSPITAL FOR WEST HARTLEPOOL.—A preliminary meeting has been held at the Athenæum, West Hartlepool, for the purpose of adopting measures for the establishment of an hospital in that place. A provisional committee was appointed to carry out the intentions of the meeting.

THE LADIES' SANITARY ASSOCIATION has distributed during the past year nearly 100,000 of its useful sanitary and other tracts, and upwards of 700,000 since its commencement—a moral force which implies a vast extension of public and really popular opinion in favour of ventilation, cleanliness, sobriety, and many other domestic improvements.

THE COLLEGE LECTURES.—The course of lectures annually delivered in the theatre of the Royal College of Surgeons will be commenced on Monday, the 6th of February, by Professor Huxley, F.R.S., who will deliver twenty-four lectures on the Mammalia, in continuation of his course of last year. Professor Fergusson, F.R.S., will complete the course in June. Mondays, Wednesdays, and Fridays are the days now appointed for the delivery of these discourses.

THE HARTLEPOOL HOSPITAL has been opened for the reception of patients by the mayor of the town in place of Mr. R. Burden, of Castle Eden, by whose liberality the building has been converted into an hospital. The alterations have cost Mr. Burden £1000. He has also contributed £250 towards an endowment fund.

CLAYTON HOSPITAL, WAKEFIELD. — Mr. Thomas Clayton, the founder of the Clayton Hospital and Wakefield Dispensary, has again munificently proposed to enrich the funds of the institution. The erection of an additional ward, called the Albert Ward, to which Mr. Clayton largely contributed, has greatly increased the expenses of the institution. To meet this demand Mr. Clayton has offered £1000, on condition of £3000 being raised by subscription. Steps have been at once taken to raise this sum, and the governors are sanguine of success.

MORTALITY AT GLOUCESTER.—The number of deaths registered at Gloucester during 1863 was at the rate of 29·54 per 1000 (the average of all England being only 22·14). This large increase is stated to be owing to the prevalence of scarlet fever during that period. The deaths of children under five years of age amounted to upwards of 51 per cent. of the mortality of all ages.

SANITARY IMPROVEMENT IN LIVERPOOL.—The grand jury at the Liverpool Quarter Sessions, on Friday, the 13th inst., made a presentment on information furnished by Dr. Trench, medical officer of Liverpool, condemning twenty-nine lots of property in the borough as unhealthy, and unfit for human habitation. The presentment of the grand jury recommended either their entire demolition or their complete alteration. This is stated to be the first important proceeding under the Liverpool Sanitary Amendment Act passed last session.

ELECTION OF COUNCILLORS: ROYAL COLLEGE OF SURGEONS.—The attention of the Council of the Royal College of Surgeons has again been drawn by the President of the British Medical Association to the general dissatisfaction of the Fellows and Members of the College at the mode of electing the Council, and an earnest request has been made that the Council will be pleased to obtain a new or supplemental charter, in order to render it lawful for the election of Councillors to be conducted by means of voting-papers, to be filled up by non-resident electors on the same plan as that adopted by the Universities of Oxford and Cambridge in their election of members of Parliament. Notwithstanding the urgent nature of the appeal, the Council of the College at its last meeting saw no reason to alter their opinion as communicated to the Association at the close of the year 1863.

TESTIMONIAL.—The friends of Dr. Stainthorpe, of Hexham, assembled at a dinner on Tuesday, the 3rd inst., at The Abbey, to present to that gentleman a testimonial, consisting of a silver tea and coffee service, together with a gold watch and appendages, and a purse of gold; also an elegant gold bracelet for Mrs. Stainthorpe. The plate bore the following inscription:—"Presented to T. Stainthorpe, M.D., M.R.C.S. Eng., &c., together with a gold watch and appendages, and a purse of gold, by his numerous friends in Hexham, Hexhamshire, &c., to mark their appreciation of his ready and courteous attention in fulfilling the duties of his profession, and as an expression of their appreciation of his worth. January 3rd, 1865."

DARLINGTON HOSPITAL.—A new hospital has recently been erected at Darlington. On the 12th inst. a general meeting of the subscribers and friends was held in the building, when it was formally devoted to the purposes of the institution. The cost is about £1700. The following medical officers were appointed:—Mr. A. O. Hazlewood, house-surgeon; Messrs. S. E. Piper and F. H. Jackson, consulting surgeons; and Drs. Hazlewood and Clarkson, consulting physicians.

MEDICAL VACANCIES.

London Fever Hospital—Assistant Resident Medical Officer.
Manchester General Hospital and Dispensary for Sick Children—Resident Medical Officer.

MEDICAL APPOINTMENTS.

J. T. BANKS, M.D., has been elected a Physician to the Masonic Female Orphan School, Dublin.

J. BARRAS, M.D., has been appointed Medical Officer and Public Vaccinator for the Parochial Board of Govan, Glasgow, vice P. B. Hislop, M.D., deceased.

T. E. BEATTY, M.D., has been elected a Physician to the Masonic Female Orphan School, Dublin.

M. H. COLLES, M.B., has been elected a Surgeon to the Masonic Female Orphan School, Dublin.

J. COUET, L.R.C.P.L., has been appointed Medical Officer for the Staveley District of the Chesterfield Union, vice G. B. Thorp, F.R.C.S.E., deceased.

W. J. CROLY, L.R.C.P.Ed., has been elected Medical Officer to the Constabulary of Darrow, Ballacolla, and Crellshill, Queen's County, vice R. Ormsby, M.R.C.S.E., deceased.

C. FRANKLIN, M.R.C.S.E., has been appointed Medical Officer for District No. 6 of the Chelmsford Union, vice C. J. Shearman, M.D., deceased.

J. H. GORNALL, M.R.C.S.E., late Junior House-Surgeon to the Preston Dispensary, has been appointed Resident House-Surgeon to the Warrington Dispensary, vice W. Abbey, M.R.C.S.E., resigned.

G. E. HYDE, L.R.C.P.L., has been appointed Surgeon to the Worcester Ophthalmic Institution.

T. JONES, M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the Builth District of the Builth Union, vice W. P. James L.S.A., resigned.

T. MARKBY, M.R.C.S.E., has been appointed Medical Officer for the Northern District of the Godstone Union, Surrey, vice R. Warrener, L.F.P. & S. Glas., resigned.

M. MASON, M.D., has been appointed Medical Officer and Public Vaccinator for the Parochial Board of Old Kilpatrick, Dumbartonshire, vice J. M'Dougall, L.F.P. & S. Glas., deceased.

R. E. RUFFE, M.R.C.S.E., has been appointed Medical Officer for the Bingley District of the Keighley Union, Yorkshire, vice H. G. Earnshaw, M.R.C.S. Eng., resigned.

T. C. SHAW, B.A., M.R.C.S.E., has been appointed Resident Medical Officer to the St. Pancras and Northern Dispensary, vice J. S. Wesley, M.R.C.S. Eng., resigned.

D. S. SKINNER, L.R.C.P.L., has been appointed Medical Officer for the Lyme-Regis District of the Axminster Union, vice J. Carey, M.D., resigned.

P. C. SMYLY, M.D., has been appointed a Surgeon to the Masonic Female Orphan School, Dublin, vice R. D. Speedy, F.R.C.S.I., deceased.

W. P. SOMERSET, M.R.C.S.E., has been appointed Medical Officer for District No. 3 of the Buckingham Union, vice H. W. Somerset, M.R.C.S.E.

A. O. SPEEDY, L.R.C.P.Ed., has been elected Medical Officer, Public Vaccinator, and Deputy Registrar for the No. 3 North City Dispensary District of the North Dublin Union, vice R. D. Speedy, F.R.C.S.I., deceased.

H. TAYLOR, M.R.C.S.E., has been appointed Medical Officer for District No. 7 of the Aylsham Union, Norfolk, vice T. R. Lombe, M.D., resigned.

Mr. B. S. VIPAN has been elected House-Surgeon and Dispenser to the Chesterfield and North Derbyshire Hospital, Chesterfield, vice E. Drummond, M.D., resigned.

N. C. WOOD, M.R.C.S.E., has been appointed Medical Officer for the Macclesfield District and the Workhouse, vice E. T. Newbold, M.R.C.S.E., resigned.

MILITARY AND NAVAL MEDICAL APPOINTMENTS.

J. C. BARKER, Staff Assist.-Surg., attached to the 6th Dragoon Guards, has been appointed to do duty with the 45th Foot.

G. BARNARD, Assist.-Surg. Bengal Service, has been promoted to Surgeon, vice Surg. S. B. Partridge, whose date of rank has been altered.

T. S. BARRY, Staff Assist.-Surg. Army, has been appointed Assist.-Surg. in the Royal Artillery, vice Grant, deceased.

W. B. BEATSON, M.D., Assist.-Surg. Bengal Service, has been promoted to Surg., vice Deputy Inspector-Gen. of Hospitals G. S. Mann, F.R.C.S., deceased.

T. BRISBANE, M.D., Assist.-Surg. R.N. Oct. 13th, 1862, has been appointed to the "Megæra."

J. BURKE, L.R.C.P.Ed., Staff Assist.-Surg. Army, has been appointed to do duty with the 50th Foot at Deesa.

J. H. BUTLER, F.R.C.S.E., Deputy Inspector-Gen. of Hospitals, with temporary rank, Bengal Service, has been promoted to Deputy Inspector-Gen. of Hospitals, vice Deputy Inspector-Gen. of Hospitals G. S. Mann, F.R.C.S., deceased.

C. J. DEVONSHIRE, M.B., Assist.-Surg. R.N. March 2nd, 1858, has been appointed to the "Penguin."

E. W. DOYLE, L.K.Q.C.P.I., Acting Assist.-Surg. R.N. Nov. 26th, 1864, has been appointed to the "Princess Royal."

C. T. EVES, Assist.-Surg., attached to the 2nd Infantry Hydrabad Contingent, has been posted to the 6th Infantry Hydrabad Contingent.

J. R. GREENHILL, F.R.C.S.E., Assist.-Surg. 72nd Foot, has been attached to the C Battery E Brigade Royal Horse Artillery.

T. G. HEWLETT, M.R.C.S.E., Assist.-Surg. Bombay Service, has been temporarily appointed to perform the duties of Surgeon to the Coroner.

C. JOYNT, M.D., Assist.-Surgeon Bombay Service, has been appointed to the Bombay County Gaol, and Professor of Midwifery in the Grant Medical College.

W. KEATES, Surg.-Major Bengal Service, has been promoted to Deputy Inspector-Gen. of Hospitals, with temporary rank, vice Deputy Inspector-Gen. of Hospitals J. H. Butler.

E. H. R. LANGLEY, M.R.C.S.E., Assist.-Surg. Bombay Service, has been appointed to the medical charge of the 24th Bombay Native Infantry, vice Peach, proceeded on furlough.

J. MACKENZIE, Assist.-Surg. Bombay Service, Professor of Anatomy and Physiology, has been appointed Assist.-Surg. to the Jamsetjee-Jejeebhoy Hospital, and Professor of Surgery in the Grant Medical College, vice Dr. Ballingall.

G. MAIR, M.B., Assist.-Surg. R.N. Aug. 4th, 1860, has been appointed to the "Fisgard" (additional).

P. O'BRIEN, F.R.C.S.E., Assist.-Surg. Bengal Service, has been promoted to Surgeon, vice Surg. W. F. B. Dalzel, M.D., whose date of rank has been altered.

T. A. O'FLAHERTY, M.D., Assist.-Surg. R.N. Jan. 19th, 1860, has been appointed to the "Landrail."

W. T. PALIOLOGUS, M.R.C.S.E., Staff Assist.-Surg. Army, has been appointed to do duty at the Colaba Sanitarium, Bombay.

R. H. PERKINS, Assist.-Surg. Bengal Service, has been promoted to Surgeon, vice Surg. C. Stewart, M.D., deceased.

F. H. RICHARDSON, M.D., Assist.-Surg. R.N. May 11th, 1858, has been appointed to Jamaica Hospital.

M. RODGERS, M.D., Assist.-Surg. R.N. Dec. 28th, 1857, has been appointed to the "Gibraltar."

H. SHAW, M.D., has been appointed Surgeon to the 1st Devonshire Rifle Volunteer Corps, vice De la Garde, resigned.

W. H. SIBSONS, M.R.C.S.E., Assist.-Surg. R.N. May 13th, 1862, has been appointed to the "Britannia."

F. H. SMITH, Assist.-Surg., officiating in medical charge of the 2nd Infantry Hydrabad Contingent, has been posted to the medical charge of the Corps.

H. M. WEBB, M.B., Surgeon to the 13th Hussars, has been appointed Staff Surg. Army, vice L. Armstrong, M.D., who has exchanged.

G. M. WEBSTER, M.D., Staff Surg.-Major Army, has been promoted to the honorary rank of Deputy Inspector-General of Hospitals, upon retiring on full-pay.

C. J. WHITE, M.R.C.S.E., Staff Surg. Army, has been appointed Surg. to the 74th Foot, vice Surg.-Major J. Macbeth, M.D., appointed to the 16th Lancers.

Births, Marriages, and Deaths.

BIRTHS.

On the 26th of Nov., at Rawul-Pindee, Punjaub, the wife of D. M'Donald, M.D., Surgeon 101st Foot, of a daughter.

On the 1st ult., at Valparaiso, Chili, the wife of Hugh Birt, F.R.C.S., L.R.C.P. Edin., of twins, a son and daughter.

On the 5th ult., at Patna, the wife of Dr. J. Sutherland, Civil Surgeon, of a son.

On the 6th ult., at Calcutta, the wife of Dr. Fraser, C.B., Deputy Inspector-General of Hospitals, of a son, still-born.

On the 9th ult., at Maranduhm, the wife of Dr. J. L. Vanderstraaten, of a son.

On the 3rd inst., at Warwick, the wife of B. Kirby, M.D., of a daughter.

On the 8th inst., at Adelaide-road, Haverstock-hill, the wife of G. R. Wyatt, M.D., of a daughter.

On the 9th inst., at Belmont, Shrewsbury, the wife of E. Burd, M.D., of a daughter.

On the 10th inst., at the Royal Infirmary, Aberdeen, the wife of Dr. R. Rattray, of a daughter.

On the 10th inst., at Brook-street, Grosvenor-square, the wife of Arthur E. Durham, F.R.C.S.E. of a son.

On the 11th inst., at St. Thomas's-street, Southwark, the wife of S. Jones, M.B., of a daughter.

On the 12th inst., the wife of Edward Headlam Greenhow, M.D., of Upper Berkeley-street, of a daughter.

On the 12th inst., at Ayr, the wife of R. Dobbie, M.D., of a daughter.

On the 12th inst., at Hawkins-street, Derry, the wife of E. Smith, M.B., of a son.

On the 13th inst., at Great King-street, Edinburgh, the wife of G. H. Smith, M.D., of a daughter.

On the 14th inst., at Guy's Hospital, the wife of Dr. Steele, of a son.

On the 15th inst., at Pix Hall, Hawkhurst, Kent, the wife of Dr. W. M. Harmer, of a son.

MARRIAGES.

On the 3rd inst., at Stonehaven, Alex. Ferrier Angus Fairweather, M.B., of Balfron, Stirlingshire, to Judith Montefiore, daughter of T. B. Armstrong, Esq., of the Foreign Office.

On the 10th inst., at St. Stephen's, South Lambeth, Samuel S. D. Wells, L.R.C.S.Ed., Surgeon R.N., to Charlotte, widow of the late J. S. Hunter, M.D., of St. George's, Bermuda, and youngest daughter of the late J. S. Wells, Esq., R.N.

On the 14th inst., at the Parish Church, Clapham, Arthur Roper, M.R.C.S.E., of Granville-park, Blackheath, son of the late S. D. Roper, Esq., of Colby, Norfolk, to Emily Louisa, eldest daughter of E. R. Sitz, Esq., of the Cedars, Clapham-common.

On the 14th inst., at St. Andrew's Church, Dublin, Bernard Kelly, M.D., of the Confederate States of America Army, to Anne Elizabeth, daughter of Wm. Dirham, Esq., of Usher's Island, Dublin.

DEATHS.

On the 13th ult., at Sierra Leone, W. B. Baikie, M.D., Surgeon R.N. April 5th, 1855, the well known African explorer.

On the 14th ult., at Monte Video, in H.M.'s Ship "Bombay," J. K. Smallhorn, M.R.C.S.E., Assist.-Surg. R.N. April 1st, 1859, appointed to the "Bombay" March 22nd, 1864.

On the 5th inst., at Southampton, W. C. Cooksey, M.R.C.S.E., of Worcester, Surgeon to the Worcester Eye Infirmary.

On the 7th inst., at Earl Soham, Suffolk, E. Gross, M.R.C.S.E., aged 59.

On the 11th inst., at George-street, Paisley, D. C. Wills, M.D., late of Cumnock, Ayrshire, aged 25.

On the 12th inst., at Brownlow-hill, Liverpool, J. B. Browne, L.R.C.S.I., aged 21.

On the 13th inst., W. H. Brown, F.R.C.S.E., of Cornwall-terrace, Belmont-hill, Lee, and of Lewisham, aged 49.

On the 16th inst., F. W. Fogarty, M.D., of Elm-bank, Marychurch, Devon, formerly of Percy-circus, London.

Medical Diary of the Week.

Monday, Jan. 23.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Jas. Jones, "On Inflammation as an Exciting Cause of Tuberculosis."

Tuesday, Jan. 24.

GUY'S HOSPITAL.—Operations, 1½ P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Electricity."

ETHNOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. Wallace, "On Civilization in North Celebes."—Prof. Busk, "On Human Remains from Gibraltar."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Dobell, "On the Natural History of 'Winter Cough.'"—Mr. T. Longmore, "On Osteomyelitis consequent on Gunshot Wounds."

Wednesday, Jan. 25.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.

LONDON HOSPITAL.—Operations, 2 P.M.

HUNTERIAN SOCIETY.—7 P.M. Council Meeting.—8 P.M. Mr. Bryant, "On some Cases of Herpes Zoster passing the Median Line."

Thursday, Jan. 26.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 1 P.M.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

LONDON SURGICAL HOME.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Electricity."

Friday, Jan. 27.

WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.

ROYAL INSTITUTION.—8 P.M. Gen. Sir Henry Rawlinson, "On the Results of Cuneiform Discovery to the Present Time."

Saturday, Jan. 28.

ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.

ROYAL FREE HOSPITAL.—Operations, 1½ P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Marshall, "On the Nervous System."

To Correspondents.

THE TITLE OF "DOCTOR."

M.D.—The question is one of far greater difficulty than is generally supposed. The framers of the Medical Act found it necessary to avoid all reference to the subject in that statute. We differ from our correspondent in thinking that legislative interference would have much influence in clearing up the matter. The public at all events would treat such a legislative enactment with indifference. So long as graduates of Universities keep open shops, and sell tooth-brushes and pomades, people at large will continue to regard them as tradesmen, and not as men of position in a learned profession. Titles are not necessarily distinctions, though they ought as a rule to be so.

G. B.—1. It is certainly acted upon in some of the London unions.—2. We are aware of no other objection.—3. If properly taken, it ought to be depended on for years.

Fair Play (Blackburn) should have assumed another signature, or have written in a spirit worthier of his soubriquet.

J. H., (Kidderminster.)—To Dr. Francis Hawkins, 32, Soho-square, London.

QUININE IN FEVER.

Dr. Archibald Hewan, of Edinburgh, in a letter on this subject, says:—

"Having resided on the West Coast of Africa, at Old Calabar, for a period of about eight years altogether, and having during that time seen a great deal of the workings of fever on the constitutions of Europeans resident there, both on land and on board the ships lying in the river, I trust you will excuse me for troubling you with a word or two as to the use and value of quinine as a therapeutic and prophylactic agent.

"I shall not occupy your valuable space with any lengthy statement of statistics, as I am not at the present moment prepared to do so. It may therefore be sufficient for me to say that I have used quinine very extensively during that time, and that it has also been very largely used by other medical practitioners there, and, moreover, by the non-medical residents themselves, whose experience of its good effects and best modes of administration they have discovered from personal repeated observations, and all with varying good results. That it is a prophylactic in the strict sense of the word, no one, I think, will go so far as to proclaim. That it is a curative agent in the sense of a certain cure for every fever, I am not ready to admit. But that it may and does materially modify the fever, I agree with Mr. Meller; and that it in many cases does actually cut short, strangle, break the neck (so to speak) of the fever, especially at its onset, the oft-repeated cases that have passed under my notice warrant me, I think, unhesitatingly to assert.

"As medical missionary in connexion with the United Presbyterian Mission at Old Calabar for the last ten years, it is with feelings of humble gratitude and satisfaction that I state, that during a period of now nearly nineteen years since the Mission was established, and with twenty-seven missionaries, from first to last only one death has taken place from fever. This case, I should perhaps state, occurred at the very commencement of the Mission, when house accommodation and other domestic comforts were very limited and difficult to be had, and when exposures to some of the worse influences of the climate were necessarily unavoidable. That they have suffered repeatedly and frequently from attacks of fever, I need hardly say. The district is eminently marshy and malarious, and quinine as a prophylactic, or more correctly as a fortifier of the system, is very commonly employed by them. Of all drugs, quinine is by far the most largely used, and to its use, judiciously, is in a great measure to be attributed the comparative health and endurance that they enjoy. But it is not by any means used every day always, nor even in 'eight-grain doses' when so employed. Two or three grains every day or other day for short periods at a time, just before or after breakfast, during the time of excessive malarious exhalations during the rainy season, and particularly at its close—namely, at the beginning of the hot and dry season—are found to serve as well, if not better. In cases where there is early morning exposure, two or three grains of quinine, accompanied by a stimulant, I have found better than the stimulant alone without the quinine; and instead of rum, as Mr. Meller recommends, or any other spirit, a cup of good coffee, whenever it can be had, with a biscuit, is to be preferred. This latter mode is the one most generally adopted by the superior officers of the ships. My own individual experience from a trial of both plans—namely, 1st, quinine and brandy; and 2ndly, quinine followed by a cup of coffee at such times when I had to be exposed on the river early in the morning—has led me to adopt and to recommend the latter.

"My object in writing the above is mainly to corroborate in any little way that I could the remark made by Mr. Meller, and commented on by yourself—namely, that "it is undesirable (and I would add inexpedient) to nauseate our sailors with daily overdoses of a costly drug."

James F. T.—The subject is worthy of further attention; but both sides of the argument should be heard. The President of the Zoological section of the British Association, Dr. J. S. Gray, in his opening address at the late meeting in Bath, entered minutely into the question of museums and their uses. This able naturalist is quite opposed to the present system of arrangement adopted in natural-history collections, which latter he does not scruple to consider in many cases little better than huge "curiosity shops."

Student.—Baker's dissecting microscope; Highley's student's microscope.

LICENTIATES IN DENTISTRY.

F.R.C.S., in reference to this subject, writes:—

"In your impression of the 7th instant you state, in reply to 'A Practical Dentist,' that the Royal College of Surgeons grants a diploma to practise dentistry. What they do grant is a 'certificate of fitness to practise dentistry;' but the holders of such certificates have no right to call themselves licentiates of the College; nor is the certificate capable of being registered under the Medical Act, although some of the dentists in the country, having obtained the certificate, do not hesitate to dub themselves 'licentiates of the Royal College of Surgeons.'"

FOREIGN DEGREES.

Dr. Hitchman has forwarded to us another long epistle on the above subject. He urges with some force the claim of graduates of Erlangen University to registration after giving proofs of having undergone a sufficient examination. The University in question having for several years granted diplomas to applicants, whether qualified or otherwise, though of late it appears to have abandoned the system, its graduates must not be surprised if the Medical Council should reserve to itself the right of refusing registration to these gentlemen. We have no doubt there are many cases of individual hardship; but we cannot but regard the regulation of the Council as a very wise one.

A Subscriber will find the subject fully treated of in the present number of THE LANCET.

Alpha.—Mr. Pratt, Oxford-street; Mr. Grossmith, Fleet-street.

RESPIRATION OF NEW-BORN INFANTS.

To the Editor of THE LANCET.

SIR,—May I trespass on your space in directing the attention of the profession to an interesting peculiarity in the breathing of a new-born child, which I have not found noticed, and which might become practically important, as in the case to which I shall allude. This occurred some years ago in the practice of a very able and learned surgeon, and who himself searched in vain for any allusion to it. After dividing the navel cord, he was surprised at the child making convulsive efforts to breathe, which were temporarily relieved by introducing the finger and pressing down the tongue; but upon withdrawing it, the same spasmodic efforts were ineffectually made. Upon closer examination, he found the child suffered from perfect stenosis of both nostrils, and he was at once struck with the idea that a new-born child cannot breathe tranquilly by the mouth. He immediately removed the stenosis. The convulsive efforts were at once relieved, and the child's life was spared.

I have artificially imitated this case by closing the nostrils, when the child either commences crying, or impending suffocation demonstrates the danger of the experiment.

I had an opportunity of further testing the truth of this a short time ago, when after craniotomy the child made an effort to cry. Here, however, life was immediately extinguished by compressing the nostrils.

I remain, Sir, yours truly,

Ulverston, January, 1865. FRED. C. JENNINGS, M.R.C.S.

Sheffield.—We have received several communications in reference to the position of the students with regard to the lectures in question. We refrained from comment on the matter, in the hope that some arrangement may be entered into by which the interests of the students may be protected. It is gratifying to learn that steps have been taken to effect this object.

No Sutor, &c., appears to confound the two iodides of mercury with each other. One, the red, the old biniodide, the "hydrargyri iodidum rubrum" of the new Pharmacopœia, is much stronger than the greenish, old protiodide, the hydrargyri iodidum viride of the same authority. With ordinary care, the latter is a very manageable form of the great anti-syphilitic remedy.

INCONTINENCE OF URINE.

Dr. Henry Beattie, in reply to our correspondent, "Essex," says:—

"I have found the use of cod-liver oil and phosphoric acid or its compounds beneficial in cases occurring about the same age as his patients—viz., from twelve to eighteen years of age. Of course, if dependent on scrofula, rheumatism, worms, &c., the cause of the disorder must be removed before general treatment can be resorted to. As my hints on treatment are almost entirely derived from Dr. Abbotts Smith's work on the subject, 'On Enuresis and Diabetes,' third edition, based on some papers which appeared in THE LANCET in 1860 and 1861, it is only fair that I should state this fact."

Mr. Richard Lee writes:—

"I have derived much benefit from the use of iodide of potassium, sometimes in combination with iodine, in small doses. In one instance, a little girl, aged three years, where numerous remedies had been tried without effect, the medicine was continued for five days only, and there has been no return of the symptoms. I have had other cases equally satisfactory, though none where the effect was so rapid."

Dr. R. S. Sisson remarks:—

"If incontinence of urine depends on debility of the sphincter, and not on irritation of the bladder, let 'Essex' try the tincture or infusion of digitalis, which has the property of exciting involuntary muscular fibre to stronger contraction."

P. observes:—

"If on examination there should be found an incurvature of the spine (sternad) in the lumbar region, the probability is that the disease depends upon pressure on the afferent nerves, occasioning imperfect paralysis of the bladder, when the patient is in the upright position during the day, which is removed at night by the recumbent posture, when a large quantity of urine is voided from the distended bladder. The remedy for this distressing complaint is the osteo-phosphate of lime and iron to strengthen and straighten the spine, which may be obtained at Davenport's, Great Russell-street, W.C. (See likewise a pamphlet by Dr. Piddock on this subject.) If, however, these be simply cases of irritable bladder, Mr. H. Thompson's suggestion of triticum repens may be of great service. (See THE LANCET, October 12th, 1861, p. 345.)

A. B. C.—The question is one more fit for some of our chemical contemporaries to answer. We believe, however, that as yet no sure method of preventing the "spontaneous decomposition of gun-cotton" has been discovered.

A. B.—Consult any work on the Bones.

THE MEDICAL ACT.

THE communication of *C. H. B.*, concerning the Amendment of the Medical Act, shall be inserted next week.

An Unhappy Man is evidently suffering more from mental than bodily disease. The practice is an evil one; but its effects have been exaggerated in his case, as in so many others, for the sake of terrifying and extorting money from him. We do not doubt that he will find both friendship and counsel, also sound medical advice, by applying to his family medical attendant. There is no cause apparently for despondency or unhappiness.

SUBSCRIPTIONS FOR MRS. THOMAS.

THE following sums have been received in aid of the above Fund:—

Miss E. E. Tonge, Hammersmith	£1	1	0
Collected by ditto	0	10	0
R. Lamb, Esq., Caledonian-road	0	10	0
E. Cock, Esq., St. Thomas's Hospital	1	1	0
Dr. Barlow, Union-street, Borough	0	10	6
Collected by Mrs. Alexander Wilson, per Messrs. Coutts ...	2	10	0

X. T. will find the information he requires in the standard works relating to the English watering-places.

Dr. F. W. Gibson, (Taunton.)—A short account would be acceptable.

ON THE USE OF AN ALKALINE BATH IN RHEUMATIC FEVER.

Mr. B. G. Escrett, of Ditchling, near Hurstpierpoint, observes:—

"Having for the past seven years been I might say a martyr to rheumatic fever, very few months passing by (till within the last year) without my being confined to bed, perfectly helpless, for some weeks, I need not say I take a peculiar interest in the treatment of that disease; and having, I quite think, warded off two attacks within the past twelve months, I shall feel obliged if you will insert this in your journal, in the hope that some of your readers will be induced to adopt the treatment in similar cases, and kindly inform me, through your pages, the results.

"During a severe attack of rheumatic fever about fifteen months ago, I found nothing relieved the pain or apparently did so much good amongst local applications as spongio-piline soaked in a warm saturated solution of nitrate and carbonate of potash, and applied to the joints; so I determined that when well again, directly I had any rheumatic pains, I would have a warm bath containing potash. As usual, only a few months passed; all the early symptoms of my old enemy returned. I was unable to use my extremities, and also had lumbago, showing there was both muscular and articular rheumatism. I at once decided to try the bath; it contained about twenty-four gallons of water at 100°, two pounds of bicarbonate of potash, and one pound of nitrate of potash. I remained in it ten minutes. The following morning I was much better; there was no fever whatever, and in a few days I was well, and able to attend to my practice.

"Shortly after this period I had a patient with rheumatic fever, and it being in its early stage when I first saw him, before the joints were much swollen, I ordered him a similar bath to the one I had, and with a similar result. I also gave it to a little boy, who when I saw him was delirious, although the joints were not much swollen, and there was no muscular rheumatism or cardiac mischief. In less than a week the boy was down stairs.

"About a fortnight ago I again had all the premonitory symptoms of acute rheumatism; but at once had the alkaline bath as before. In two or three days I was well (although the knees were stiff and painful for a week), and had not a symptom of fever.

"I doubt not I have to thank the bath for saving me from two attacks of rheumatic fever; for until I used the alkaline bath, whenever I had any rheumatism about me, it was sure to run on to the fever, and keep me a prisoner for several weeks."

Sartor Resartus.—The use of anæsthetics is not so modern as many suppose. In Middleton's tragedy of "Women, beware of Women," published in 1657, there is the following passage:—

> "I'll imitate the pities of old surgeons
> To this last limb, who, ere they show their art,
> Cast one asleep—then cut the diseased part."

Alpha, (Belfast.)—1 and 2. No definite steps have yet been taken to carry out the required alteration. — 3. The examination papers have not been published.

MEDICO-LEGAL QUESTION.

Beta in a communication relates the following case:—

"I learn that 'Alpha,' of Jersey, has been engaged on a point of medico-legal investigation, on which no light is thrown by works on Medical Jurisprudence.

"Having at this time a case *sub judice*, in the medical history of which a somewhat similar point is involved, I have in vain searched for aid in forensic literature to enable me to corroborate the opinion I have formed on the subject. It is shortly this:—

"A woman who was thought by her neighbours to be pregnant, suddenly appeared diminished in size. Rumour hinted that she had given birth to a child. The authorities apprehended this woman on suspicion. She acknowledged having given birth to a child, and led the constable to where the body was, wrapped in a cloth, and buried beneath the surface of the ground. Her account is that it was premature; that she was taken suddenly with pains in consequence of a fall; that the child was born *dead*, and that she buried it.

"The post-mortem examination showed unequivocally that the child had arrived at complete maturity, was strong and vigorous, and that it had respired fully and freely. The internal evidences went to show that it had died from obstruction to the respiration. There were no marks of ligature round the neck, and the questions arise—How was death in this manner effected? and, especially, was the child *fully* born before respiration ceased? In respect of the latter query, I answer in the affirmative, because the only evidence of the manner in which respiration was obstructed consisted in the condition of the nose and mouth, which were pressed flat on the face; and although at least a fortnight had elapsed, *the rigidity of the parts was so great and persistent* as in my judgment to show that it *must have taken place subsequently to and in consequence of death*. The arms of the child were embedded in the well-covered sides of the body, so as when separated from it to leave deep moulds of their form. It appears as if the unnatural mother had buried the child alive, and stamped upon it to make all right.

"If your Jersey correspondent or any other of your readers can throw light on this obscure point of medico-legal investigation, I shall consider myself obliged."

THE FACTORY ACT.

THE correspondent who has addressed us on the qualifications necessary to be possessed by a factory surgeon is referred to the eighth clause of the Act, which contains all the information which can be furnished on the subject. Of course, whoever is appointed must be registered under the Medical Act:—

"And be it enacted, that after the passing of this Act any inspector shall have power to appoint a sufficient number of persons practising surgery or medicine to be certifying surgeons, for the purpose of examining persons who shall be brought before them to obtain the surgical certificate of age required by the Factory Act and by this Act, and of giving the said certificates, and shall from time to time make regulations for their guidance, and shall in every such appointment specify the factories or district for which each surgeon is appointed, and may from time to time annul any such appointment, and in like manner make another or others; but every appointment of a certifying surgeon, and every order annulling such appointment, may be revoked by the Secretary of State, on appeal made to him for either purpose; and the inspector of the district shall make known the name of the certified surgeons so from time to time appointed or discontinued to the occupiers of the factories in that district in such manner as to him shall seem fit; but no surgeon being the occupier of a factory, or having a beneficial interest in any factory, shall be a certifying surgeon."

H. B. H. should consult the Medical Register, which gives a list of legally qualified practitioners. In his case he had better apply to any well-known surgeon attached to a metropolitan hospital. The worst guides which he can follow are the public advertisements in the daily journals; for those who advertise in this way are usually the outcasts of the profession, and often merely unprincipled adventurers.

Student (Barnsley) would gain no time by commencing his lectures in the summer.

Einion.—It is not usual to charge a consultation fee under such circumstances, though it is occasionally done.

SORE-THROAT AND SCARLET FEVER.

M. writes:—"Will you or any of your readers be good enough to express an opinion as to whether there exists any appearance in a sore-throat specially characteristic of, and by which disease existing without eruption may be positively pronounced to be, scarlatina?"

Nicotina.—Dr. Richardson's work on the Use of Tobacco will supply the information required.

Inquirer should consult our advertising columns.

THE letter of *Mr. Gascoyen*, "On the Unity of the Syphilitic Virus," is unavoidably postponed until next week.

J. D.—The qualifications are sufficient for the purpose mentioned.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Gairdner, Glasgow; Dr. Jenner; Dr. Marcet; Dr. Peacock; Mr. T. Holmes; Mr. Locking (with enclosure); Dr. Nuttall, San Francisco; Mr. Bebbington, Liverpool; Mr. Davey; Mr. Rooke; Mr. Chapman; Mr. T. Jones, Builth; Dr. Lowe, King's Lynn (with enclosure); Mr. Hawker; Mr. Powdrell; Mr. Sutton, Sandy; Mr. Gascoyen; Mr. Brown, Antigua; Dr. Scholfield, Birkenhead; Mr. Brook; Mr. Ling, Saxmundham; Mr. Evershed, Arundel; Mr. R. Smith; Dr. Clark, Walsall; Mr. Metcalfe; Mr. Townley; Mr. Nash, Liverpool; Mr. Jameson (with enclosure); Mr. Gill; Dr. Eve (with enclosure); Mr. Lawley; Mr. Gornall, Preston; Mr. Irvine; Mr. Lewis; Mr. Hampden; Mr. Hordley, Etruria; Mr. Kemp, Castleford (with enclosure); Mr. Wilson; Mr. Buchanan, Haltwhistle; Messrs. Pearse (with enclosure); Mr. Noble; Mr. Cornish (with enclosure); Mr. Taylor, Sheffield; Mr. Maunder; Messrs. Pinchard; Mr. Edgeworth, Bristol; Mr. Whalley; Dr. Fox, Paris; Dr. Mackesy, Waterford; Mr. Wood (with enclosure); Dr. Smith, Melbourne; Mr. J. Marcet, Auckland (with enclosure); Dr. Pyle; Dr. Fotherby; Dr. Brodie, Capheaton; Messrs. Wheeler and Co., Blackburn; Mr. Davies; Mr. Yorke, Granard; Mr. McGraham; Mr. Nicholls (with enclosure); Mr. Forman, Fettercairn; Mr. Hemingway, Colnbrook; Dr. Leet, Rathmines; Dr. Lorraine, Douglas; Mr. Newton; Mr. Everett, Ditchling; Mr. Chandler; Dr. Wills, Blandford (with enclosure); Mr. Hillman, Kidderminster; Mr. Folthorp; Rev. G. Stopford, Torquay; Mr. Knowles; Mr. Holbrow, Stonehouse (with enclosure); Mr. Osborn; Mr. Armstrong, Newmills; Dr. Briggs; Mr. Woodward; Rev. J. Stevenson, Fyone; Mr. Collier; Mr. Powne (with enclosure); Mr. Cowan, Glasgow; Mr. Bogg; Mr. Kent; Mr. Nash, Liverpool; Dr. Long, Leamington; Mr. Jukes, Newport; Mr. Cannan; Dr. Hitchman; Dr. Muspratt, Liverpool; Dr. Gibson, Taunton; Mr. M'Lellan, Liverpool; Mr. Morgan; Mr. Savage; H. B. H.; M.D.; Royal Institution; Students; Inquirer; C. W.; Physiologist; B. L. (with enclosure); G. F.; A Member of the Profession; Einion; J. C. L.; Alpha; Nicotina; R.; M.B.; Anthropological Society; A Subscriber; C. H. R.; Pathological Society: A Provincial Fellow of Sixteen Years' Standing; M.A.; Odontological Society; &c. &c.

THE *London Mirror*, the *Leeds Intelligencer*, and the *Birmingham Daily Post* have been received.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	0
For every additional line	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements which are intended to appear in THE LANCET of any particular week, should be delivered at the Office not later than on Wednesday in that week: those from the country must be accompanied by a remittance.